always pack in plenty of citrus fruit

For young and old, rich or poor—to maintain buoyant health and prevent sickness[1,5]—adequate vitamin C is "good medicine." Since mild nutritional deficiencies are so common,[2,4] and vitamin C even in excess is not harmful[7]—sound dietetics today calls for the abundant use of foods rich in this factor.* Florida citrus fruits are so popular . . . so varied . . . so convenient . . . so inexpensive, they can be used every day at every meal (as juice, fruit cup, salad, with entrees, as desserts, for between-meal snacks, etc.). And whether fresh, canned or frozen, they retain their vitamin C potency—and their pleasing flavor—almost indefinitely.[3,6,8]

FLORIDA CITRUS COMMISSION • LAKELAND, FLORIDA

**Citrus fruits—among the richest known sources of vitamin C—also contain vitamins A and B, readily assimilable natural fruit sugars, and other factors, such as iron, calcium, citrates and citric acid.*

References:

1. Bicknell, E. and Prescott, E.: The Vitamins in Medicine, Heinemann, 2nd ed., 1946. 2. Bull. Nat. Research Council No. 109, 1943. 3. Krehl, W. A. and Cowgill, G. R.: Food Research, 15:179, 1950. 4. Lucia, S. P. and Simmonds, N.: J. Pediat., 37:608, 1950. 5. McLester, J. S.: Nutrition and Diet in Health and Disease, Saunders, Phila., 4th ed., 1944. 6. Moore, E. L. et al.: J. Home Econ., 37:290, 1945. 7. Quart. Rev. Pediat., 4:170, 1949. 8. Roy, W. R. and Russell, H. E.: Food Industries, 20:1764, 1948.

FLORIDA

Oranges • Grapefruit • Tangerines

practicalities . .

Television programs are an important new tool for home service departments all over the country. This month's cover shows Mrs. Cleo Filsinger *(left)* of the Pacific Gas and Electric Company of San Francisco acting as guest home economist on the KRON TV *Homemaker's Hour.* Other work done by the company's home economists includes lectures and demonstrations before women's clubs, church and school groups. In the main home economics office much writing is done, including a syndicated newspaper column and educational booklets

MOST graduate home economists have vivid memories of six weeks spent in a home management house. Our lead article this month will recall these memories as well as picture for home economics students-to-be some of the experiences they may expect. Activities carried on in the house at St. Scholastica College in Duluth are described by Ida Leavitt on page 12.

★

Last spring our editorial advisor, Mena Hogan, wrote us of the visit she had had with Mrs. Edd Lemons, wife of the extension editor at Oklahoma A & M in Stillwater. Mrs. Lemons was just completing a master's degree in home economics after being a homemaker for fifteen years. She had many comments to make about how a graduate home economics education was helping her, as an experienced homemaker. Some of these are expressed in the article she subsequently wrote for us. See *A Homemaker Views Advanced Study,* page 15.

This month we introduce a new contributor to the clothing and textiles section. She is Marie Antoinette Falcone, who wrote the article, *Shrinkage-Control Treatments for Wool* on page 17. Miss Falcone is head of the bureau of merchandise standards of the Associated Merchandising Corporation. She is a graduate of Penn State and was formerly connected with the textile laboratory of the Good Housekeeping Institute. For the past several years she has taught evening sessions in textile testing at New York University's School of Retailing. Her article is the first of a series on new trends in textiles.

What Makes a Good Knife and why is the subject of the equipment article on page 22. It was prepared by Nell White, assistant professor of home management at Purdue University, and two high school home economics teachers, Dorothy Hasler and Elizabeth Rudd. On page 24, they follow up their analysis with directions for keeping a good knife good by correct sharpening.

★

The homemaker who buys frozen foods in small quantities usually places them somewhere in her refrigerator until she serves them. What happens to the food while it is stored there is the subject of *Storing Frozen Foods in Domestic Refrigerators* by Donald K. Tressler on page 27. Dr. Tressler, who is one of the leading authorities in the frozen food field, was appointed scientific director of the Quartermaster Food and Container Institute of the Armed Forces last month. When this article was written, he was acting as a consulting food technologist. Among the positions Dr. Tressler has held are those of chief chemist for the Birdseye Laboratories and head of the chemistry department of the New York State Agricultural Station, Geneva.

A practical plan for food budgeting in a home management house is presented by Grace F. Hinchliff of Marygrove College on page 28. See *Balanced Diets and Balanced Budgets* for a sample of her plan in action.

Have you been saving and making use of this year's PRACTICAL HOME ECONOMICS covers? We have planned them especially to help you show your students and community the scope of career opportunities in home economics. Thus far we have depicted the work of home economists in: teaching, the food field, textiles and clothing, and child development. This month the cover highlights one phase of the work of a home service girl with a public utility company. Watch for the careers that will be illustrated on our covers in coming months.

The Editor Says—

As we start this new year our world has a grim pall—sharply emphasized by the Presidential proclamation of a state of emergency. This recognition of crisis gives even greater point to the note of urgency sounded by Edna P. Amidon, chief of home economics education of the U. S. Office of Education, in her talk at the American Vocational Association meeting the first of December.

Home economists will have to accept new responsibilities, Miss Amidon warned, as the defense needs of our country became known. These will include: 1. Helping women to maintain homes adequately while working. Home economists will have to provide a kind of consultant service for homemakers carrying a two-fold job for the first time.

2. Helping homemakers make maximum use of goods and services available. Home economists through their national organizations have a unique responsibility for working with other groups in civilian economics problems in a time of heavy military expenditures and expected shortages of consumer goods.

3. Helping in civilian defense. This not only means helping in the American Red Cross program for training millions of people for first aid and home nursing, but in other programs which may call for preparing school lunch personnel for mass feeding in time of disaster and other such emergencies.

In our teaching of youth and adults, Miss Amidon urged that we discard what is no longer appropriate. "We must test our standards and procedures for every homemaking activity," she said, "against what is practical in a real family situation. We must teach decision-making processes more effectively than we ever have. We cannot drop cooperative planning because 'there isn't time.' "

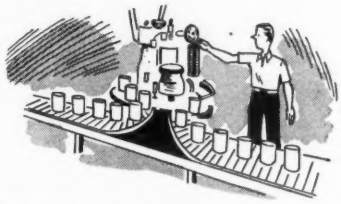
As we meet the responsibilities outlined by Miss Amidon—and the many others that may come our way in the next year—we must carry them out with calmness and with the knowledge that intelligent effort applied to even the smallest tasks will help toward our goal of peace in the world.

Ruthanna Russell

Easy-to-teach facts about commercially canned vegetables and fruits

1. Why are fruits and vegetables used for canning *especially* grown?

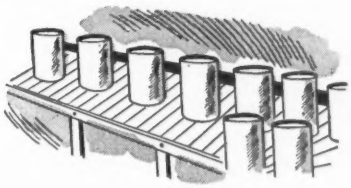
2. Why are they picked at just the *right* point of maturity for canning?



3. Explain why they are canned as quickly after harvest as possible.

4. Discuss, step by step, the processes used for fruits and vegetables in a cannery.

5. Is anything added to canned fruits except a sugar syrup?



6. Why is nothing added to canned vegetables except water and sometimes a little salt or sugar?

You can always have an interesting discussion period (and a worthwhile, informative one) by telling your students something about canned foods and inviting their questions.

Since canned foods are so much a part of our daily living everyone is interested in knowing something of how they are prepared and preserved.

American Can Company has prepared for high school use three valuable booklets packed with lively information. They supply the answers to dozens of questions commonly asked about canned foods and make unusually excellent teaching aids.

Fill in the coupon and tell us how many of each booklet you wish for use in your class.

AMERICAN CAN COMPANY
Home Economics Section
100 Park Avenue, New York 17, N. Y.

Please send me, free of charge for class distribution, the number of booklets indicated.

QUANTITY:

___*High School Manual On Commercially Canned Foods*
___*The Canned Food Handbook*
___*Choice Recipes And Menus Using Canned Foods*

Name_____

School_____

Street_____

City_____ **Zone**_____ **State**_____

PH-1-51

...NEWS NOTES...

FOR the second time within a generation, democracy is being forced to defend itself. What home economists and educators can contribute during the crisis is again a pressing concern.

A discussion of the job of education in time of national emergency is found in the November 1950 *School Life,* official journal of the U.S. Office of Education. Introduced by a statement by President Truman that "Democracy demands good education—today more than ever before," the magazine includes articles which deal with the place of a democratic school system in the war of ideologies and its tasks during a state of war or near war.

The work being undertaken by the Office of Education is described, along with a list of persons assigned to defense jobs in the federal agency.

The difference between education in a democracy and a totalitarian state is defined by Oscar Ewing, Federal Security Administrator, in one article. "*They* want people to stop thinking and to start accepting. *We* want people to think for themselves, to think harder and better than ever before, and by that means to reach joint decisions. *Their* idea is conformity; *our* idea is free choice, influenced only by argument and knowledge."

The importance of training for democratic living is thus emphasized. As Earl J. McGrath, United States Commissioner of Education, said before an NEA conference on federal aid to education, "In terms of the final values we wish to defend and promote, it would make little difference whether democracy was destroyed by conquest, by infiltration or by losing its own character."

The defense mobilization issue of *School Life* can be obtained for 15 cents from the Information and Publications Service, U.S. Office of Education, Washington 25, D. C.

Food Editors Honored

Three home economists were among the seven food news writers and broadcasters honored by the Grocery Manufacturers of America, Inc. at the organization's annual meeting in November. They are Heloise Parker Broeg, who is "Mother Parker" for Boston's WEEI Food Fair program; Agnes Reasor Olmstead, home economics editor of the *Atlanta Constitution;* and Jane Weston of Station WOWO, Fort Wayne, Indiana. Mrs. Broeg and Mrs. Olmstead received the two first awards—the Life Line of America trophies—for their work in explaining America's system of food processing and distribution through their respective media. Miss Weston received first honorable mention in the radio class.

Carpet Design Contest

Two home economists from Wayne University are on the advisory committee for the first annual National Carpet Design Competition sponsored by the Arthur Fleischman Company of Detroit. They are Frances G. Sanderson, director of home economics, and Olive Goodrich. Thirty-two persons prominent in art, education and civic activities are on the committee for the $2000 contest. More information about the contest can be obtained from the Competition Committee, Arthur Fleischman Company, 12585 Gratiot Avenue, Detroit 5, Michigan. Closing date is February 15, 1951.

Consumer Information Report

A report on the consumer information conference recently held by the Ohio State Home Economics Association has been made available. The 60-page bulletin includes discussions of food economics, consumption and consumer buying, decoration, household financial management, standardization of consumer goods, information in advertising and selling, and the use of visual aids in consumer group discussions. Requests for the publication should be directed to Dr. Dorothy Scott, Campbell Hall, or Dr. Kenneth Dameron, Hagerty Hall, Ohio State University, Columbus 10, Ohio. The price is $2, payable to the Ohio Home Economics Association.

★

Dates to Remember

January 1—New Year's Day
February 7—Beginning of Lent
February 12—Lincoln's Birthday
February 14—Valentine's Day
February 17—Annual meeting, Department of Home Economics, NEA, at the Marlborough-Blenheim Hotel, Atlantic City
February 22—Washington's Birthday
March 3-11—National 4-H Club Week
March 25—Easter Sunday
May 1—Child Health Day
June 26-29—Forty-second annual convention of the American Home Economics Association, Cleveland, Ohio

★

Baking Utensils Standards

Ellen-Ann Dunham, director of General Foods' consumer service department, has been elected chairman of the sectional committee on home cooking and baking utensils of the American Standards Association. The committee plans to work on specifications for baking and cooking utensils, including dimensions, tolerances, terminology, safety and quality. One subcommittee is investigating dimensions for round baking pans, a second is studying coffee and tea making utensils and a third is analyzing pressure cookers and canners.

From Here to There

Mercedes Bates has been named home economist for the Rabbit Packers of California. Miss Bates has spent the past three years as director of home service for the Globe Division of Pillsbury. Previous to that, she was with the Southern California Gas Company. In addition to helping to develop the public taste for domestic rabbits, she is acting as consultant for other important accounts.

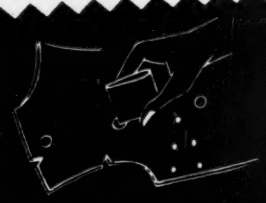
Jane Marshall is still home service director of the Binghamton Gas Works and is not in Washington, Pennsylvania, as reported in the November 1950 *Here to There* column. Miss Marshall was formerly in Cumberland, Maryland, where she was replaced by Rita McIntyre.

Ada R. Morgan has been appointed an instructor in home economics at Russell Sage College, Troy, New York. Miss Morgan has a diploma from Pratt Institute and her bachelors and masters degrees from Teachers College, Columbia University. She has had experience in high school home economics teaching, as a school cafeteria manager and as a hospital dietitian. She is a former president of the Food Service Directors Association, New York City.

Ruth Yakel has been appointed executive secretary of the American Dietetic Association to succeed Gladys Hall. She was formerly acting assistant director and therapeutic dietitian at the Indiana University Medical Center. She has also had experience as dietitian in several other hospitals, as an instructor in home economics at the University of Utah and as director of food services at College Camp, Wisconsin, where she was responsible for feeding 1000 people per meal. Miss Yakel took her dietetic internship at Indiana University Medical Center and her masters degree at Teachers College, Columbia University.

Why home economists prefer the Perforated Pattern

THE PERFORATED PATTERN MAKES MARKING EASY

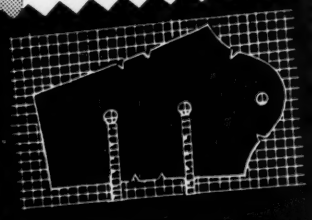


Rub tailor's chalk thru the perforations onto the fabric to mark notches, grain line and darts without tearing tissue.

THE PERFORATED PATTERN IS ACCURATE AND ECONOMICAL

Each pattern piece is precision cut to the edge for accurate, economical placement on fabric. Saves time, saves fabric.

THE PERFORATED PATTERN ASSURES GRAIN LINE PERFECTION



The grain of the fabric is visible thru the perforations.

Advance

THE PERFORATED PRECISION

pattern

THE PERFORATED PATTERN MAKES TAILOR TACKING SIMPLE

Just sew thru the perforations, loop the threads and remove the pattern tissue. (No possibility of pulling out threads)

THE PERFORATED PATTERN SAVES YOU TIME

No margins to laboriously trim. Only one cutting operation is needed, as edge serves as a clean cutting line.

Education Dept.
Advance Pattern Company
331 East 38th St., New York

I would like to try an Advance Pattern, as featured monthly in Practical Home Economics.

I have selected from the pages Advance #..... Size.....

Name_____ Title_____

School_____

Address_____

City_____ Zone_____ State_____

ADVANCE PATTERN COMPANY • 331 East 38th St., New York 16, N. Y.

BOOKS *in* REVIEW

Modern Homemaker's Cookbook

By Beth Bailey McLean
M. Barrows & Co., New York
Price $3.00 Pp. 311 1950

Mrs. MacLean brings years of experience both as a homemaker and as a professional home economist to the *Modern Homemaker's Cookbook*. The result is a basic recipe book which provides complete, step-by-step directions for the beginner, but could also serve as a standard working reference for any cook.

There are twenty-one chapters, each dealing with a different type of recipe. Each is introduced by general directions for preparing the particular type of food being discussed. The first chapter, entitled "A Word to the Wise Beginner," covers kitchen weights and measures, what to do before starting to cook and how to measure accurately.

Homemaking teachers who add the *Modern Homemaker's Cookbook* to their recipe book collections can be confident that students using it will be guided by easy-to-follow, accurate directions.

Historic Furnishings

By Nevil Truman
Pitman Publishing Corp., N. Y.
Price $4.75 Pp. 201 1950

Anyone familiar with Nevil Truman's *Historic Costuming* will welcome his new companion book, *Historic Furnishing*. This authoritative, fully illustrated and readable text covers the furnishings of all the important periods of history from the Gothic through Duncan Phyfe. Truman shows clearly how the needs of the people, events in history, whims of rulers, art of various countries and the creative genius of 18th century craftsmen have gradually influenced prevailing furniture designs.

One may easily trace the development of the basic furniture pieces—table, chair, chest and bed—through the years of history (1400 through 1850) when furniture showed its greatest development. In addition to furniture illustrations which includes mirrors, clocks and other accessories, there are some fine drawings of stairways, doorways, mantels and interiors. The glossary of terms and well condensed summaries at the end of each chapter add to the value and usefulness of the book.

The student of interior decoration, the collector of antiques and the designer of stage settings will find her library incomplete without the addition of Truman's *Historic Furnishings*.

—Reviewed by HAZEL T. CRAIG

Moneywise

By Mary Berkeley Finke
and Helen Knox
G. P. Putnam's Sons, New York
Price $3.50 Pp. 298 1950

Here is a woman's guide to money management written by two women who have long been prominent in the banking world. The book is divided into three sections. The first, "Your Everyday Affairs," deals with checking accounts, budgeting, saving, credit and taxes. Section II, "Building for the Future," includes wills, preparation for a rainy day, insurance, estate planning, real estate and investments. "Some Special Problems," such as financial statements, money for traveling and club finances are covered in the third section. While *Moneywise* was written with the intelligent lay woman in mind, it includes much which would be suitable as background reading for high school and college students. Teachers will be interested in studying it both for their own information and to assist in teaching money management.

High Times

By Nellie Zetta Thompson
E. P. Dutton & Co., New York
Price $2.50 Pp. 253 1950

How often have you been adviser to an entertainment committee who didn't know where to turn for party ideas that were exciting, different—and practical? If this has been your problem, *High Times* offers 700 different solutions. That is the number of suggestions for social activities suitable for junior high and high school age youngsters which this book contains. It includes chapters on banquets, informal dances, parties, proms, teen-age recreation centers and miscellaneous social affairs. Invitations, publicity, decorations, costumes, music, refreshment and entertainment are all covered. An unusual index enables one to refer to programs suitable for specific types of parties.

Youth After Forty

By Ida Bailey Allen
Garden City Pub. Co., N. Y.
Price $2.95 Pp. 364 1950

Home economists who are approaching or have passed their fortieth birthdays or who are responsible for advising mature women will be interested in Ida Bailey Allen's new book. Emphasis is placed on the mental attitudes which make a woman youthful at any age. Chapters are devoted to the grooming and health problems of mature women, whose special needs are often neglected in literature on this subject. Other subjects covered are hobbies, jobs and etiquette for women past forty.

Mrs. Allen, a dietitian, was once diet editor of the *Medical Review of Reviews*. She is widely known for her radio program and for her many books on homemaking, cooking, nutrition and entertaining.

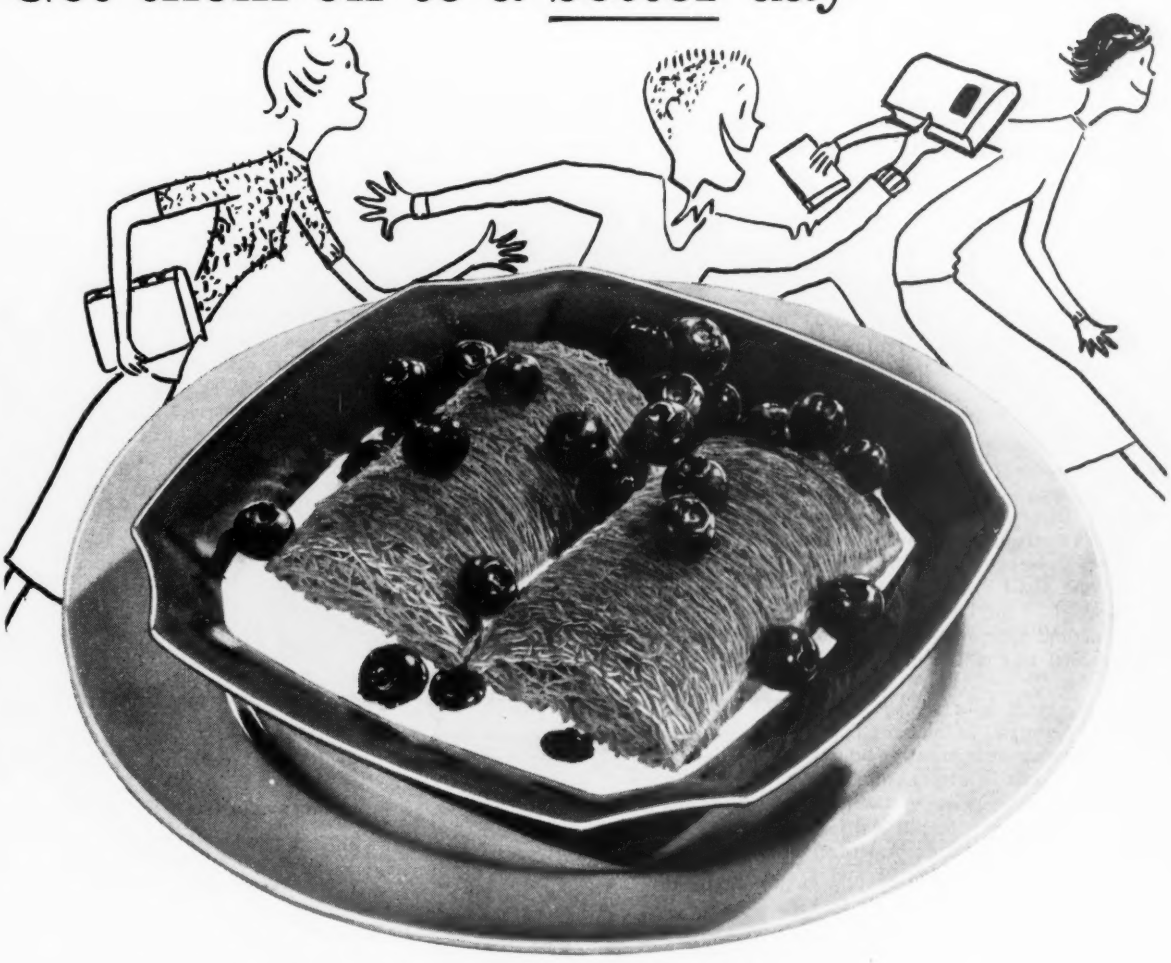
Worth Knowing About—

Good Schools Don't Just Happen was prepared by the United States Office of Education as a guidebook for community organizations interested in life adjustment education. It includes checklists on the goals of education, the situation in the local community and ways in which schools can be helpel to meet the needs of children better. This booklet is available from the Science Research Associates, 228 South Wabash Avenue, Chicago 4, Illinois, for 10 cents a copy.

Spot and Stain Removal is the revised version of Cornell Extension Bulletin 356, giving directions for preparing stain removers, using them, and the treatment of specific stains. It is published by the New York State College of Home Economics at Cornell University, Ithaca, New York.

Pots and Pans for Your Kitchen discusses materials for cooking utensils, pans for oven use and utensils for range-top use. It also includes a list of utensils as a guide for equipping a kitchen. The 32-page booklet is illustrated with a number of photographs. It is sold by the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C. for 10 cents.

Get them off to a better day



the NABISCO "better breakfast" way

There's no better start for your students than that important breakfast lesson. You've all agreed that an honest-eating breakfast built around whole grain wheat is vital to growing youngsters. And NABISCO has it – lots and lots of nourishing whole grain in every bite of delicious NABISCO SHREDDED WHEAT. So rich in essential proteins, carbohydrates, iron, phosphorus, and Vitamin B, it's the perfect breakfast food.

Served with milk and sugar, topped off with fruit, NABISCO SHREDDED WHEAT tastes like a million – supplies food energy for a healthier, better day!

START NOW – with NABISCO's grand teaching aids – all about the role of whole wheat in the family diet. Mail coupon.

NABISCO

NABISCO SHREDDED WHEAT ®

THE ORIGINAL NIAGARA FALLS PRODUCT

NATIONAL BISCUIT COMPANY

National Biscuit Company, Niagara Falls, New York Dept. P-1

Please send me without charge a copy of your new four-color wall chart "Begin With Breakfast" and also a sample of the accompanying student project sheet which is available in quantities for classroom use.

Name.....*Title*.....

School.....

City.....*State*.....

Number of Students Taught.....

This offer good in United States only.

OFFICIAL United States Government documentary films are playing an important role in the State Department's "campaign of truth." The government has discovered the effectiveness of these audio-visual devices in presenting a message clearly and dramatically. As an example of concrete results, the Department of State reports that after a showing of the film *Hookworm* in one small Filipino town, the entire stock of a local shoe store was bought out and the proprietor had to make a special trip to the nearest city for more shoes.

The government films are shown to community groups in labor halls, schools, churches, community houses and public squares in ninety countries. They cover a wide variety of subjects —UN action in Korea, the physical features of the United States, American techniques used in a number of trades and professions, the Marshall plan and the importance of the individual in affairs of community, state and nation.

Teacher Makes Filmstrip

During the past ten years, over three hundred pictures of various phases of the homemaking program have been taken in the homemaking laboratory of the Highland Park Schools, Highland Park, Michigan. Now these pictures have been made into a filmstrip by Kathryn MacLennan, supervisor of home economics there, and Dr. Arthur Stenius, director of the audio-visual materials consultation bureau, Wayne University. The 50-photo filmstrip tells the story of how a teacher and students planned the remodeling and equipping of the lower apartment of a two-family house. Copies of the filmstrip can be obtained for $3.00 from Kathryn MacLennan, supervisor of home economics, Highland Park Schools, Highland Park 3, Michigan.

New Film Catalogues

The National Film Board of Canada has a new catalogue of 16 mm. films which are available in the United States for rental or purchase. Among the films which may be of interest to home economists are *Craftsmen at Work, Family Circles, Know Your Baby, Mother and Her Child, What Makes Us Grow?*, and *Why Won't Tommy Eat?* The catalogue is available from the National Film Board of Canada, 1270 Avenue of the Americas, New York 20, New York or 400 West Madison Street, Chicago 6, Illinois.

Westinghouse Motion Pictures for School Use has been revised. It includes six films listed as appropriate for home economics classes—*Dawn of Better Living, 40 Billion Enemies, Menacing Shadows, V-Men, What is Electricity?* and *Your Ticket to Better Buying.* Copies can be obtained by writing to the School Service Department, Westinghouse Electric Corporation, 306 Fourth Avenue, Box 1017, Pittsburgh 30, Pennsylvania.

Cooking Meat

Now you can stimulate class interest in meat cookery with three new sets of films. The six full-color movies, produced by Armour and Company, are distributed in sets of two. The programs are: *Your Frankfurter Favorites* and *Better Bacon, The ABC's of Beef Cookery* and *Can You Carve?*, and *Spring Chicken the Year Round* and *Easy as Pie.* The latter shows how to make pies, tarts and turnovers. The films, which average about twelve minutes apiece, can be borrowed free from any of the four Association Films offices. The New York address is 35 West 45th Street, New York 19, New York.

Meal Planning Filmstrip

Here is a new visual aid which overcomes the difficulties which may be encountered when actual tables are set up as examples of various kinds of meal service. When this filmstrip is used, there is no problem of too few dishes or too little time or space. *The Gracious Hostess* shows settings for informal breakfast service, luncheons, Sunday evening buffets, formal dinners. It also has pictures of carving methods and tips on serving, garnishes and etiquette. The filmstrip is sold for $3.00 by the Chas. A. Bennett Company, Inc., 237 North Monroe Street, Peoria 3, Illinois. It is designed to supplement Beth Bailey McLean's book, *Meal Planning and Table Service,* which is published by the same company.

TV Corner

HOME economists who get stage fright at the mere thought of a television demonstration should gain courage from the example of Elena. This widely known San Francisco woman, who has been blind for fifteen years, now has her own television program. Assisted by her son, Billy, she gives a quarter hour demonstration once a week, featuring old California and Spanish dishes. The program, which is sponsored by Fresherator, is filmed in San Francisco and shown over station KFI, Los Angeles.

Elena is the author of *Elena's Famous Spanish and Mexican Recipes* and *Lessons in Living.* Shown with her and Billy in the picture are home economists Genevieve Callahan and Lou Richardson, who assisted in the preparation of Elena's cookbook.

Channels for Educators

At least one television channel in every community for educational uses was claimed by a committee of educators in hearings before the Federal Communications Commission last November. In cases where all channels are already allotted to commercial interests, the schoolmen asked that a part of any ultra high frequency band which is opened for use be set aside for educational purposes. Heading the committee were Keith Taylor of the National Association of Educational Broadcasters, who spoke for higher education, and Belmont Farley of the National Education Association, who represented public education below the college level.

Previous to the hearings, Federal Communications Commissioner Frieda B. Hennock had said, "We at FCC are deliberating the assignment and reservation of some 2,000 new TV stations across the country. Naturally, I hope that a good percentage of these stations will be utilized by educators and institutions dedicated to the advancement of knowledge and the preservation of our democratic ideals. Science and technology have combined to make a wonder like television possible. It is up to our educators to see to it that this great invention is used to further the cause of public education and help eliminate ignorance."

Crisco's Baking Primer for Your Students!

ABC's of Quick Method Cakes!

It's *easy* as A B C for your students to turn out perfect cakes with this Crisco Quick Method cake recipe! It's easy on your ingredient budget, too, when you use this 1-egg, single-layer version as a basis for a class project. And your students are sure of lighter, richer, moister, finer-textured cakes than with other types of shortening or ordinary recipes.

PROCTER & GAMBLE
Home Economics Dept., Ivorydale 17, Ohio

A. MIXING (Time—4 minutes)

Measure 1 cup sifted cake flour, ⅔ cup sugar, ½ teaspoon salt and ¼ cup Crisco into a large mixing bowl. Add ¼ cup milk. Mix thoroughly for two minutes. Stir in 1½ teaspoons double-acting baking powder and add ¼ cup milk, 1 egg and ½ teaspoon flavoring. Mix two minutes.

B. BAKING (Time—25 to 30 minutes)

Brush 8-inch layer cake pan lightly with Crisco and dust with flour or line bottom of pan with heavy waxed or plain paper. Pour batter into pan and bake at 375° F. for about 25 minutes.

C. COOLING and ICING

Allow cake to cool in the pan on a cake rack for 10 to 15 minutes. Before removing cake from the pan, loosen edges with a spatula or knife. Place rack over top of cake and pan and invert together. Cool cake before icing.

use CRISCO

IT'S DIGESTIBLE!

LIFE

Home management houses in colleges all over the country provide student home economists with a chance to find out how classroom and laboratory knowledge works in a homelike situation. The article on these pages describes typical activities of students while they live in a home management house and what these experiences teach them.

STUDENTS majoring in home economics at the College of St. Scholastica, Duluth, Minnesota, receive each year a period of intensive and practical home training. In a house standing apart from the college, the students learn to manage a small home on a moderate income basis and to care for a child taken into the home to live with them. The course is planned so that what a home should possess in moral and religious structure is taught along with modern housekeeping and nutritious meal planning.

The Cape Cod cottage in which the

The name of the cheerful little girl *above* is Kathy. Caring for her for six weeks last year was the responsibility — and delight — of students in the home management house at St. Scholastica College. By carefully planning, Kathy's many foster mothers were able to do all the housework necessary in a home with a child, attend classes and care for Kathy. Kathy's job was easier; she was just asked to act like a little girl

Kathy wore this simple cotton dress proudly, for it was freshly laundered, starched just right and beautifully ironed

By Ida Leavitt
College of St. Scholastica
Duluth, Minnesota

in a home management house

students live and learn home management was carefully adjusted, in floor plan and cost, to meet the needs and financial capacity of the average young married couple buying their own home. The cottage contains a living room which can be converted into a bedroom, dining room, kitchen, bedroom, bath and enclosed back porch. Furniture and furnishings are complete, though modest.

Students put away college clothing for simple cotton dresses the first week the house opens, for it must be cleaned thoroughly. All share in the domestic labors of washing woodwork, wiping down wallpaper, waxing floors and hanging curtains. By actually doing, the students learn the fastest, easiest and best methods of cleaning house and then the even more valuable lesson of keeping it clean. They are also taught that to create, with joy and dignity, a clean, orderly, smoothly running home where work is balanced with play and good fellowship and worldly activities with worship, is to establish a Christian home, serving society and honoring God.

Along with housecleaning come the responsibilities of motherhood, for a young child is brought to live in the home management house with the students. The choice of the child is left to the Catholic Welfare Bureau in Duluth. It may be either a girl or a boy, and has been as young as eleven months. A routine suited to the child's age is established at once and, while not rigid beyond common sense, it is maintained for the entire student training period.

Each week a different group of students takes on new responsibilities. One week they launder. The next, they are cooks. They must plan the meals, shop for food and prepare it. Sometime during the week, they must entertain dinner guests. Meals must not only be tasty and varied, but nutritious and reasonable in cost as compared to prices on the food market for the week.

All students must also continue their regular college subjects and keep up in their studies. This is made possible by teamwork during the day, each girl taking up her task promptly as another leaves the house for a scheduled class. There is no idle time for any of the students for six weeks, but during this time the practical application of college learning, as represented by the practice house, inspires in each student an added respect for her major—home economics.

When the six weeks' period is over, the students feel, despite the strenuous routine, that they have enjoyed it and benefited immeasurably from the common experience in living and learning. Some of the young women, engaged to be married, soon carry the training into homes of their own. Others teach or become dietitians.

Nose pressed against the window pane, Kathy watched from inside while one of the students cleared a path through a deep snow drift

Her bedtime bath was fun for Kathy. She took a nap every day, was given lunch afterward, played until seven when she was bathed and put to bed

Kathy watched fascinated while this Sister, one of the students, made a cake. She wanted to stick her finger into the bowl and taste the dough

Budgeting for better living

By Sylvia Shiras
Home Management Editor, Consumer Education Department, Household Finance Corporation

You may think of budgeting as a means to better living, but to many people the word suggests complicated percentages and endless records. This article gives suggestions for making good money management more appealing

THE next time you are at a dinner meeting, ask the person next to you what he thinks of family budgets. Ask your friends too—those who don't know much about home economics. Keep the question in mind and ask it whenever you have an opportunity—on the bus when someone shares your seat, when you are waiting for a meeting to begin. It will surprise you to learn what the folks right around you think about budgeting. You will probably decide that we need to start a campaign for better understanding of the philosophy of good money management. You may decide also that there is need to make budgeting methods more practical.

Too many people believe that the whole idea of budgeting is to *save* money. To succeed in our efforts to improve family relations through better money management we must help people to understand that they will get better family living through budgeting than they can ever have with hit and miss spending.

Shouldn't a teacher's philosophy of money management be so clear-cut that it will be a part of every course she teaches? And shouldn't it extend far beyond the school room to be effective? If our objective is to teach budgeting for better living, can it be confined to one class unit of a few lessons?

Make Budgeting a Community Project

There are three possibilities for extending budget information—all right at hand. One is to bring to the attention of other teachers the importance of early and continued education in managing money. Help all of your associates, from the first grade teachers to every teacher in the school, to understand what is meant by good money management practices and enlist their help in developing right attitudes toward budgeting. Circulate articles and booklets on the subject. Have your students prepare posters to be displayed in halls and classrooms.

Another possibility is to provide programs for parents. Use every opportunity to interpret budgeting as a means of achieving goals. Provide program chairmen with source materials on the subject and tell them of new films as they are released.

A third suggestion is to plan projects in which parents and group leaders will participate. This idea can help to put emphasis on individual planning according to family needs and desires. Groups to which children belong, both in and out of school, often set up budgets. Use these as demonstration material in your classes. If the group leaders, such as scout masters and class advisors have been exposed to your ideas about money experience for children, they will relate these to personal budgets and your teaching will be strengthened. It is easy to use these group budgets as an introduction to family planning.

Begin With Wishes

The two main instruments of motivation in budgeting are setting up goals and realizing satisfaction through achievement. Then why not start every lesson and every talk on budgeting by asking what the family or the individual or the group wants? By doing that, individual and group ambitions are brought into focus; interest in the mechanics of budgeting is sharpened. It immediately breaks down resistance. As soon as a person defines what it is he wants, he will begin to plan to get it. This method when used for personal interviews has proved stimulating and logical. It puts the discussion on the "you" basis. In class teaching it will open the subject of standards and levels of living. It will help in an appreciation of the rights of others and call attention to the need for family members to share in sacrifices as well as pleasures.

Ask students to discuss their wishes with the family at home. What things do they want soon or in the near future? These definite objectives catch on like fire. Next day you'll be surprised how many families had family conferences for which you were responsible. Sisters and brothers will learn something about planning for spending and, when they refer to it in their own classes, those associates whom you have carefully indoctrinated with your budget philosophy will carry on.

Simplify Budget Building

Some budgeting methods seem to be an effort at complication and confusion. The different categories of expenditure are divided and sub-divided with suggested proportions as patterns to allow for each. Rather than helping, this becomes a tedious process and a stumbling block to good planning. It is one of the important reasons for resistance to budgeting.

We must make it clear that there is no one right way to classify expenses. Let each family develop a plan according to the family custom of spending. Why not group expenses according to time? They can be divided into future, past and present needs. The debts are past expenses. Contract payments such as installments on a car or refrigerator and insurance premiums are future expenses. Day-to-day living costs are present ones.

When there are debts, they are very important to the family and often are the reason they want to start budgeting. In fact, "To Get Debts Paid,"

(Concluded on page 44)

Homemaker views advanced study

By Lois Lemons
Homemaker, Stillwater, Oklahoma

What can a homemaker gain from taking her masters degree in home economics? The author, who received her M.S. last June, reviews in this article the contributions graduate work has made to her homemaking career

THE last strains of the organ processional were floating through the massive college fieldhouse. The college president and other dignitaries were taking their places on the speakers' rostrum. It was graduation time at Oklahoma A. and M. College, and there I sat, surrounded by hundreds of eager, youthful, excited graduates. How young and pretty the girls looked, I thought to myself, quickly picturing my own 12-year-old daughter smiling down to me from the balcony.

More years ago than I care to remember I had sat in this same place to receive my batchelor's degree in home economics, just as many of the group were doing today. So much water had gone under so many bridges since that time, I reflected.

I was vaguely aware of the speaker taking his place before the group and beginning what promised to be an inspiring address. I wish I had heard all of it. But suddenly, there flashed through my mind the thought that extra company would be dropping in today for lunch. Why hadn't I remembered it before? Would the five-pound baked hen be sufficient?

It was a warm morning. Both the speaker and the audience appeared to be in reflective moods. That didn't help my situation. Tearing myself from the baked hen problem I turned to another vexing question. Just why had I worked for a master's degree? How had it helped me as a mother and homemaker?

It certainly had not been easy, this business of going to college, keeping house, doing my own cooking, housework, laundry and mending and at the same time taking care of a daughter about to enter her teens. Like the little boy who had already eaten the green apple, I reminded myself that it had not been necessary. But the deed was done, and deep down inside I felt elated. I found it a tremendous lift to a housewife's morale to know that women whose family responsibilities have kept them away from classrooms for years still can match the youngsters in learning subject matter and making grades.

By this time the speaker was warming up to his subject, but I could not help wondering what a college degree would mean to the hundreds about to graduate. What had returning to college meant to me?

Making a special effort to keep my mind off the painful possibilities of not enough baked hen, I realized that home economics education had taught me the importance of proper eating. Our family is like the average. They accept without criticizing, and sometimes I think without recognizing, the food set before them. Like every other housewife and mother, mine is the responsibility for the entire family so far as proper eating is concerned.

I have learned through my college classes and actual practice under supervision what balanced meals should contain and how to prepare them in an attractive and appetizing manner. My daughter gets her quart of milk a day and the rest of the family gets its requirements. We have fruits, eggs, cereals, butter, meat and vegetables, including those necessary green vegetables, every day.

Perhaps the one achievement in this line which gives me the greatest satisfaction is the knowledge that through the help and advice I have given my daughter at home, she can choose a well-balanced, nutritious and sensible meal at her school cafeteria, or anywhere else she happens to eat.

The thought suddenly occurred to me that, hardly realizing it, I had been reaping the fruits of my college work in almost every chore I did around my home. Take washday, for example. I can remember in the not-too-distant past when I would have plunged nylons into hot water or accepted stains on table linens and clothing as unfortunate accidents about which little could be done.

I know now, thanks to my home economics classes, that lukewarm water is better for washing nylons. I know that blackberry stain on cloth can be removed by stretching the stained material tightly over the top of a pan and pouring boiling water through it. I learned that grease spots will come out by rubbing with unsalted fat before washing, and iron rust can be removed by rubbing with lemon juice and salt before washing.

I found myself wondering if some of the younger graduates who had not yet had experience as homemakers would remember these things when the need came and, recalling a few painful experiences of my own, I sincerely hoped they would.

The field of frozen foods is another innovation which has added new pleasures and conveniences in our homes. The exchange of ideas, the research and study we carried on in this field in connection with our classes in graduate study have helped me immeasurably.

For example, I am convinced that most families who buy home freezers for the first time buy them too small. They venture into the project with a feeling of uncertainty, then discover they have started out with a unit inadequate for the many uses they find for it.

I now know that in addition to meats, the home freezer unit is ideal for freezing and storing vegetables; I can make rolls and keep them safely in the unit

(Continued on next page)

(Continued from preceding page)
until unexpected company or some special occasion makes them doubly welcome. I learned to make ice cream and sherbets and store them in the unit in large quantities. Pastries are a natural for cold storage and most useful for fast desserts.

New household appliances and equipment entered the picture, too, as I hurriedly surveyed what college training had meant to me. In our home management houses on the campus we have electric dishwashers, ironers, automatic washers, electric mixers, latest model sweepers and self-defrosting refrigerators. I not only learned how to operate these time and labor saving appliances, but, like most of my classmates, resolved they were the things which every well-dressed kitchen should wear. We analyzed and adjusted our own standards of living by those examples which were continually set before us. We experienced newer and better ways of doing things and we liked it. We resolved to have those things in our own homes, if not all at once, then just as rapidly as they could be obtained in keeping with the family budget.

At this point in my reflections a line from the speaker burst through my defenses. He was saying something about the importance of learning how to get along with people, and wars between nations which result from differences of individual opinions.

What have I learned about getting along with other people, I asked myself. Then I remembered the emphasis our instructor had placed on that very thing . . . how we must establish sound values, be understanding with our neighbors, and enter into community life with a spirit of cooperation, humility and helpfulness. If there is anything which will make one tolerate another's views, and recognize that there are many sides to a question, a college class will do it. No other group can match a typical college class in taking the starch out of a stuffed shirt or tearing the mask from a pretender.

I was particularly interested in anything pertaining to home life and things which concern my daughter. I know that my college work has helped me considerably in this respect. I learned the fallacy of the old teaching that children should be seen and not heard. They should have freedom the same as other members of the family, though it should be guided or controlled.

I have learned that we should teach our children to be desirably independent and to express themselves freely. My college training opened new doors for me in the field of home life.

It may be difficult to convince the husband in the family that when you subtract the cost of the housewife's college training from the benefits she

(Concluded on page 37)

Training Competent Domestic Help

By Martha McMillin
San Bernardino, California

THE San Bernardino, California, public school system has initiated a course designed to train girls for positions as mother's assistants and housekeepers. The course has two purposes: one, to relieve the shortage of domestic help in the city and the other, to develop efficient houseworkers who can expect better pay and better treatment from their employers. Classes are held at the Edison Continuation High School and are open to all interested girls.

City home economics teachers, city school administrators and state employment officers cooperated in planning the course. The instructor in charge is Nellie Hankins, a home economics teacher with wide experience on the high school level.

The class meets in a modern kitchen equipped with both gas and electric appliances. In addition to practical training in cooking, the girls study house cleaning, laundering, table service, flower arrangement, budgeting and buying, baby sitting, the duties of a hostess, time scheduling, safety in the home, employer-employee relationships, personal appearance and citizenship. The course may be taken for one year or two years.

To acquire experience in planning, cooking and serving, the class gives three luncheons a week to groups ranging up to sixteen guests. These guests include prospective employers and civic-minded women who are willing to pay an average price of sixty cents per luncheon to help finance the course. This income pays for all the food used by the class.

During the morning, the girls work in a combination dining room and kitchen, which has been decorated by them. In the afternoon, they take regular high school courses. As soon as the instructor feels a girl is competent to do the work efficiently, she is placed in a home as a mother's helper, housekeeper or maid.

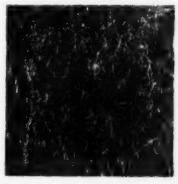
Mary A. Burke, placement officer for the state employment office, is chairman of the governing committee. She feels that, in addition to improved wages, hours and working conditions, the course will result in better liaison between prospective employers and available domestic employees. The course is also valuable in that it appeals to minority groups who, particularly during depression times, have difficulty getting and keeping positions unless they are unusually well qualified. Even when business improves, trained workers can expect better pay and treatment.

This experiment in training domestic help is being watched carefully by home economics teachers in other California cities. In many places, unemployment is increasing rapidly and soon only the most highly trained personnel in any field will be able to find and hold jobs. The San Bernardino class has already turned out students who have been placed in good positions and are succeeding in them. Ultimately the course may prove a real boon to the community, both from the point of view of the employer and that of the prospective job-seeker.

By Marie Antoinette Falcone
Head, Bureau of Merchandise Standards
Associated Merchandising Corporation
New York, New York

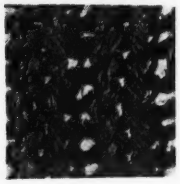
shrinkage-control treatments

help prolong the life of woolen garments



Left, **untreated swatch after 5 washings. Magnified 8 times**

Right, **swatch treated with *Lanaset* after one washing**



Photos courtesy American Cyanamid Company, Textile Resin Department

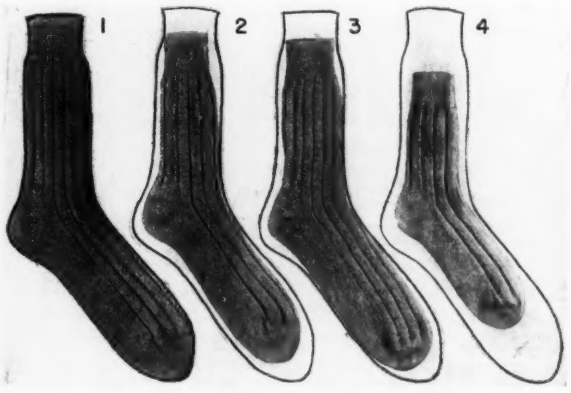


Photo courtesy Penney's *Fashions and Fabrics*

1. Original 100% wool hose, either treated or untreated. 2. Same hose immersed in water. 3. *Sanforlan* hose after one-half hour in washing machine with a neutral soap at 100°F. 4. Untreated hose after the same washing test

WOOLENS can now have added life if they are treated with one of the processes which reduce shrinkage to a minimum.

Wartime research resulted in the development of new processes which are used today by many manufacturers to assure washable woolens. Washability is an important serviceability factor in the selection of any textile merchandise. Not only does it mean more convenience and economy in upkeep, but assures a satisfactory method for removing perspiration, grime and certain food stains. This type of soil cannot be removed by drycleaning solvents. It can only be removed by wet cleaning, which consists of treating the fabric with water and mild detergents. Therefore, unless the fabric withstands the effects of soap and water, it cannot be cleaned satisfactorily and its life is shortened.

Until recent years, there was no assurance that woolens would retain their original appearance and fit after washing or even cleaning. No matter how much care was taken, there was always danger of shrinkage due to felting or matting.

Why wool shrinks

There are two types of shrinkage which cause woolens to change in shape or dimensions—relaxation shrinkage and felting shrinkage.

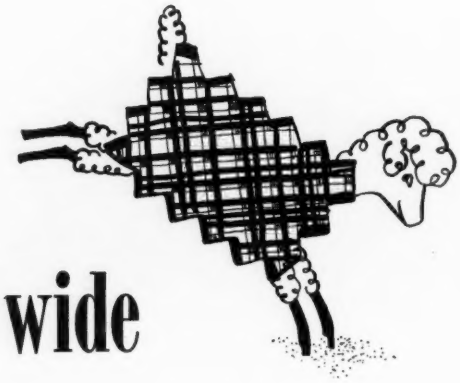
Relaxation shrinkage is common to most fibers and results when the fabric is wet out or laundered. During manufacture a fabric is subjected to tensions which leave it in a stretched condition. Subsequent wetting or laundering releases the tensions introduced in weaving, bleaching and other finishing operations, and produces shrinkage. Some of this type of shrinkage can be corrected by ironing or by boarding, but it can be eliminated almost entirely by special shrinkage treatments like "Sanforizing" for woven cottons and "London Shrinking" for woolens.

Felting shrinkage is peculiar to wool and is due to the nature of the fiber. The wool fiber is like a pine cone—it has numerous serrations or scales which overlap like shingles on a roof and cause the wool fiber to crawl and become interlocked with adjacent fibers. This crawling action produces matting or felting. Felting is most likely to occur in washing, although it can occur from heat and friction (underarm areas of sweaters, for example.) Felting produces a change in texture and permanent shrinkage of the woolen fabric. Once

(Concluded on page 48)

5218

5567



all wool and a yard wide

THE recent 4-H Club sewing survey rates wool high on the list of fabric favorites. This animal fiber fabric is eye-appealing, colorful and long-wearing.

Before buying wool for a garment, study the different weights. For dresses, look for 5-8 ounce weights; skirts, 7-10; suits, 9-12; coats, 12 ounces and over.

Basically there are two types of wool fabrics—wools and worsteds. The difference is in the yarn. Wool is short fibered, soft and loosely spun, as in jersey, dress crepes and fleece. In worsted, the short fibers have been removed and the result is long, tightly twisted fibers such as are used in weaving gabardine and covert.

ADVANCE 5218, teen-age 10-16, 25c. Wear jumper with or without blouse. Combine jersey with printed challis.
ADVANCE 5567, teen-age 10-16, 25c. Easy-to-make suit. Choose a basic spring color like beige, red or navy woolen and switch with other wardrobe items.
ADVANCE 5568, teen-age 10-16, 25c. Separates in coordinated plaids and solids. Try washable Sanforlan wool.
ADVANCE 5452, teen-age 10-16, 25c. Bolero suit perfect for tone-on-tone wool combinations.
ADVANCE 5217, teen-age 10-16, 25c. A background dress for accessories. Choose a soft wool crepe or flannel in pastels, cinnamon, navy or beige.

By Beth Keeler Wham
Acting Chairman, Home Art Division
Pennsylvania State College, State College

being creative is all important

Craft students at Penn State are encouraged to experiment with unusual materials. *Above*, Virginia Skelton uses grasses to create an interesting texture

CREATIVENESS keynotes the craft work in home economics at the Pennsylvania State College. Students in Home Art are urged to seek new ways of using old materials or to develop new techniques of their own for solving problems in the crafts workshop.

In weaving, as is the case with the other crafts, the students are encouraged to experiment to see what they can do on their own. They may order linens, cottons, metallic and novelty yarns from the supply houses, but much more important than these basic yarns are the various grasses, twines and scraps which they find on hikes in the nearby countryside or at home in rag bags. Hardware stores offer fascinating twines and strings, ropes and cords. These are normally used by Pennsylvania farmers, but the students have woven many of them into exciting fabrics. The photographs show how imaginatively Penn State students utilized some of the many yarns and local materials available.

Combinations of natural jute twine and novelty cotton yarns, hard finished twine, cotton or woolen lengths, and various reed and wooden strips from the local lumber companies may be woven into useful fabrics for the home. Many unusual filling materials have been found in the ten-cent store, and some students have been known to pull wire dish scrapers apart for a touch of crinkled copper.

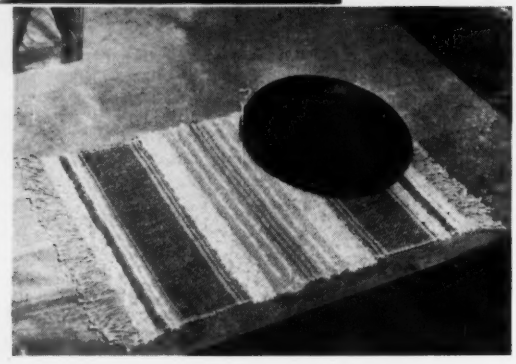
The emphasis in design centers upon the interesting use of textures and colors, rather than upon the old pattern drafts which have come to us from the early Pennsylvania settlers. The students are not taught to use these drafts because it is felt that a more creative approach to weaving may be experienced by those who are free to experiment, to discover and to have fun with their yarns.

We hesitate to submit a beginner in weaving to the ordeals of copying an intricate pattern draft, with the accompanying nerve-racking fears of mistakes. We feel that if the individual and her own inner aesthetic satisfactions are important at all, the only way in which she may gain her rightful share of pleasure is through creatively choosing her own combinations of weaving materials. This is the reason we do not recommend that our students copy coverlets and table cloths made by their great grandmothers.

Proof that attractive results may be obtained by this approach to design is seen in the two photographs of place

(Concluded on page 41)

Two place mats designed by students



Ontario's arts and crafts

By Genevieve Allan
Critic Teacher, Home Economics
Acadia University, Wolfville, Nova Scotia

THE teacher attending the Ontario Department of Education's unique summer course in arts and crafts gets more for her money than most summer school students. She invests twelve dollars and five weeks of her time in this educational workshop in Toronto. In return, she not only masters new skills and gains academic credit, but also becomes the richer by the attractive objects she makes in her classes. Depending on her choice of work units, she may take home a pair of beautifully designed handscreened draperies, a silver bowl or copper bracelet, a finely sculptured piece of wood, a yardage of handwoven tweed, two or three pieces of richly glazed pottery or an intricately carved leather desk set.

Thirty-six units are offered, including those already mentioned, plus paper sculpture, puppetry and photography. The teacher-student may choose five or six each year for three years. At the end of that time, she will have completed enough units to qualify for an inspector's or supervisor's certificate in arts and crafts.

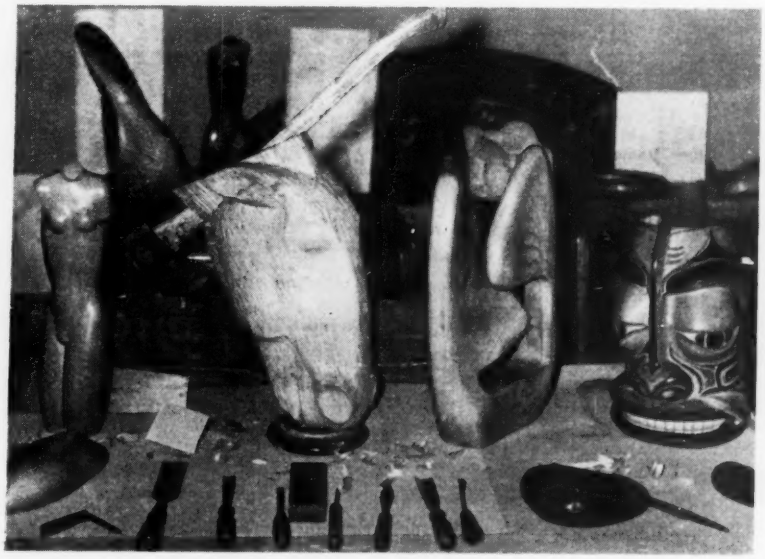
Each unit requires a total of eighteen hours to complete and is under the supervision of a specialist.

Principal of the summer school is Dr. C. D. Gaitskell, director of art for Ontario. His staff includes some of Canada's best artists and craftsmen. Also on the faculty are artists from the United States, New Zealand and Venezuela.

Aside from the exciting creative experiences provided by the crafts they learn, Ontario's teachers may attend lectures and seminars on the history or the philosophy of art, design in daily living, and educational methods—important background for the use of arts and crafts as part of a general education program for all pupils. This is the purpose of the summer school program, which is immensely helpful in adapting the many media of art expression to the various grades. Its significance for teachers of home economics is obvious.

A live-wire social committee attends to the recreational and social needs of the summer school students, providing noon-hour programs of movies, concerts and puppet shows. Talent is enlisted partly from among the students themselves and partly from radio stars. Wiener roasts, moonlight cruises on Lake Ontario, visits to "live" broadcasts all help pass the evenings pleasantly.

That this program is popular with Ontario teachers is dramatically illustrated by the fact that though there are facilities and staff for only five hundred, over one thousand applications to attend were received in 1950. Several of those applying were from other provinces and were admitted only by special permission.



Teachers, not professional craftsmen, made the articles shown *above*. Ontario summer school students at work on other craft projects are pictured *across top*

YOU MAY USE IT 129 TIMES A DAY

BUT DO YOU KNOW . . .

what makes a good knife?

By Nell White
Assistant Professor of Home Management
Purdue University, Lafayette, Indiana

Doris Hasler
Home Economics Teacher
Thomas Carr Howe School
Indianapolis, Indiana

and Elizabeth Rudd
Senior Home Economics Teacher
Conneaut City High School
Conneaut, Ohio

THIS knife has a three-year guarantee. The stamped blade is high-carbon vanadium steel, chromium plated, and hollow ground." So says the catalog or sales clerk.

What do such terms mean to the homemaker who realizes her kitchen knives are dull and inefficient? What do these terms mean to the bride who is selecting knives for her new kitchen? Or to the professional home economist trying to help present and future homemakers?

One study shows that the housewife performs some task with a knife on the average of 129 times a day. It is not mere assumption that the kitchen knife is an essential piece of equipment.

Before buying, it is wise to think of the qualities which are desired in a knife and how it will be used.

First on the list of desired features is a sharp, durable cutting edge to make possible a clean cut, give thin slices, and retain the product's original shape and texture.

Given proper care, a good knife should last a lifetime. Slight sharpening will be necessary occasionally, with thorough sharpening at greater intervals. The handle should withstand wear, feel comfortable in the hand, and not come loose.

Attractive knives sell first. Too many times a shiny blade and a polished handle are the only deciding points. However, the shiny blade is an indication of one good feature—stain and rust resistance.

Each Knife for a Purpose

Carving knife

Used principally at the dining room table, but often needed in the kitchen too. The blade is stiff, thin and about nine inches long. The point is long and thin to assist in getting around bones. A forged knife of high carbon steel is the best.

Utility knife

Semi-flexible blade about 5 to 6 inches long. It may have straight or curved cutting edge. It is used for cutting up large vegetables, trimming meat, slicing cold chicken, cleaning fish, and almost any other kind of food preparation. It is recommended especially if only one or two good knives can be purchased, because it can be used for both paring and slicing.

Slicing knife

Long, thin, narrow, flexible blade. It tapers slightly at the point. Gives thinnest slices of cold meat, bread or cake.

Bread knife

Thin, broad, but flexible blade about 7½ or 8 inches long. It may have a saw-tooth or serrated edge. Hard, high carbon steel is necessary. Other knives dull rapidly in cutting bread.

Paring knife

Sharp, pointed blade. Short, 2½ to 3 inches long. Gives the best leverage without undue strain on finger muscles. Blades are of three forms: sharp, spear or clip point.

Butcher knife

Thick, heavy, curved blade for strength.

Grapefruit knife

Curved and often serrated.

French cook knife
(and wooden board)

Straight edge, and firm but tapering point. The handle is placed so that the hand will not interfere with quantity chopping of nuts, small fruits and vegetables.

The following knives are usually among those recommended for every kitchen: paring knife, utility knife, carving knife, slicer, French cook knife, butcher knife.

THIS IS WHAT YOU LOOK FOR

In the material in the blade

High carbon steel is used in the best knives. It is tough, hard, takes a keen edge, and holds it. The amount of carbon in the steel is measured in points, one point equaling .01 per cent. Very fine knives have 100 to 125 points (1 to 1.25 per cent). Plain high carbon steel is not stain or rust proof.

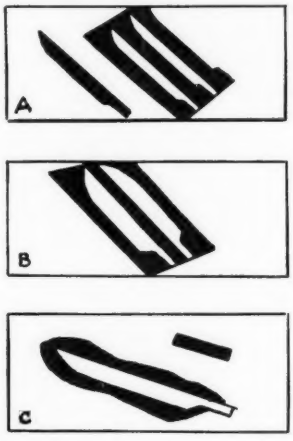
Vanadium steel alloys have the necessary hardness for a sharp cutting edge. They may be chrome plated. This makes it practically stainless as long as the protective plating lasts.

Stainless steel is an alloy of steel, nickel and chromium. This cutting edge is seldom as good as high carbon steel because part of the carbon has been replaced by chromium, and the reduction of carbon lessens the cutting effectiveness. It appeals to the buyer because it holds a high polish, will not rust and is resistant to stains.

Chromium plated finish on high carbon-steel knives combines stain resistance with a sharp cutting edge. The edge is left unplated to give more satisfactory sharpening.

Stainless iron, an alloy of chromium and iron, is inferior to stainless steel because of the still lower content of carbon. A mark saying "stainless" may mean only stainless iron. Therefore, one should find out what the metal is.

The forming of the blade



A. *Stamped blades* are cut from uniform metal sheets and tapered along the cutting edge by grinding. This is generally the most inexpensive method of forming the blade. The quality of material in the blade and the grind used determine whether the stamped knife is good or poor quality.

B. *Beveled blades* are formed from a steel bar which is thick in the center and tapers toward each edge. Two blades back to back are cut at the same time. The tapering aids in grinding the blade to a keen edge.

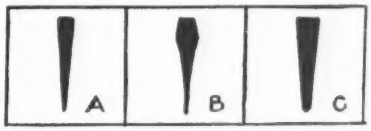
C. *Forged blades* are the most expensive. A short bar of high carbon steel is heated and then hammered into rough shape by hand, or—a less costly method—with a drop hammer. Forging develops a fine grain in the steel. The blade tapers from back to cutting edge, like the beveled blade, and also tapers from handle toward tip of knife. This combines strength at the handle with flexibility near the point of the blade.

Hardening is the process which follows the forming of the blade. The blade is heated to a high temperature and then cooled quickly by plunging into water or oil.

Tempering consists of heating the blade to a lower temperature than in hardening and cooling slowly. This process prevents the metal from becoming too brittle.

Grinding is often done under water to prevent drawing—or destroying the temper. Grinding refers to the edge that is put on the knife. There are four main kind of edges available.

Serrated edge or *scalloped edge* as on bread knives has groups of fine ridges running first in one direction and then the other. It is self-sharpening.



A. *Flat or straight ground* cutting edge may be used with forged, beveled or stamped blades. This cutting bevel varies with the purpose for which the knife is used from less than 1/16″ to 1/8″ in width.

B. *Hollow ground* edge has sides concaved like an old-fashioned straight razor. It is the fastest cutting edge and the easiest to keep sharp. It is used on most types of knives. An imitation ground edge is used on cheaper knives.

C. *Roll grind* is used on heavy cooks' knives, cleavers and butcher knives where unusual support is required for cutting edge.

Handles

The material in the knife handle should be tough, smooth and non-absorbent. The fine grain woods—ebony, rosewood, and beechwood—are often used. Painted handles are to be avoided. With plastic handles, the shank is molded into the handle by heat and forms a solid piece. These are strong and durable, practically moisture proof and without cracks to collect dirt. Plastic handles will break if accidentally dropped on a hard surface.

The joining of blade to handle

Shoulder protects joining of blade to handle. It is made in one piece with the blade and found only on forged blades.

Bolster is a kind of collar cast between blade and handle after they are joined.

Ferrule is a collar of pressed sheet metal which is slipped over the end of the handle next to the blade. This is the cheapest method of joining the handle and blade. The ferrule may loosen and dirt get underneath it.

The tang

Another factor in the joining of blade to handle is the amount of shank, or tang, extending in the handle. When the tang runs the entire length of the handle, it is called "full tang." When it extends half way, it is called "half tang." Generally, full tang is an indication of quality. Large rivets attaching tang and handle are better than small ones. Low priced knives may use a very short tang which is secured to the handle only by friction.

(Turn to the next page)

(Continued from preceding page)

why have a dull knife?

CORRECT sharpening of knives extends their period of use. The method used depends on the knife blade, equipment available and the skill of the person.

Only steel knives should be sharpened. Silver and silver-plated knives should never be ground or whetted because the soft metal is not intended to be ground.

Knife sharpeners may be divided into two groups: (1) those which realign the cutting edge of a blade, as the sharpening steel; and (2) those which regrind the cutting edge.

Of the latter, there are three kinds. There are fast cutting stones such as abrasive grinding wheels and abrasive discs; slow cutting or fine stones such as the oil stone; and steel discs. Each type has its use.

Sharpening Steel

The sharpening steel is for use on high-quality knives. It touches up an edge that is already sharp. For safety, the steel should have a protective guard at the handle.

Oilstone

If the sharpening steel fails to realign the cutting edge of a good knife, then the oilstone should be used.

An oilstone which is fine on one side and coarse on the other is recommended. Wet it with light oil before sharpening the blade. This floats away the steel and stone particles that otherwise would fill the pores and glaze the stone. It will also prevent the temper of the knife from being drawn.

Tool Grinder

The abrasive stone or grinding wheel requires much skill to handle successfully. This harsh method cuts away the blade of the knife, and is used only when the knife is exceptionally dull or has nicks in it. Oilstone and the sharpening steel are used for finishing.

Disc Sharpener

The disc sharpener is effective for low carbon steel knives. It is composed of two sets of intersecting steel, which must be harder than the knife they are to sharpen. The sharpener should be fastened to the wall. The knife is inserted between the discs and drawn downward. This gives a temporary edge, but wears the blade down. Steel discs should not be used on a high quality knife. However, some people believe that the bad reputation of steel discs comes from the fact they are used improperly.

A knife should be sharpened according to the cutting job it is to do. Pare a potato and notice how the knife moves straight across or down the side of the potato. Slice the potato and observe the sawing motion as you slice. Do you push the knife into position on the forward stroke and cut on the backward stroke? If so, you will recognize that a paring knife requires the minute cutting teeth on the edge set differently from a slicing knife.

In the case of the paring and chopping knife there is an advantage in cutting when the teeth are perpendicular to the cutting edge. For the slicing knife, the teeth are most effective when they slant toward the handle.

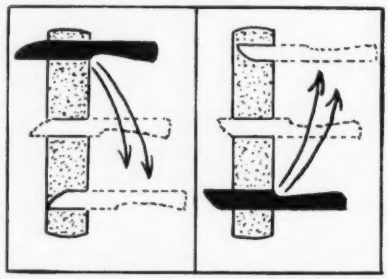


Chart I **Chart II**

Right-handed sharpening of paring knife showing how to stroke knife

How to Sharpen a Knife

What you will need:

1. A cloth to place stone on
2. Oilstone, combination fine and medium coarse 7″ x 2″ x 1″
3. Potato to test sharpness. Cabbage and other foods may also be used
4. Knives to be sharpened
5. Light grade of motor oil
6. Kerosene or ammonia for cleaning.

How to work:

A. A straight edged paring knife is easiest to sharpen so try this type first.

B. The steps to follow are:
   1. Wet a cloth and place it on the table.
   2. Place the oil stone on the cloth with the fine side up. (Use the fine side until you learn the proper stroke.)
   3. Put a few drops of oil on the stone before beginning the whetting.
   4. Test the knife by paring a potato to determine how dull it is before you begin. Is the blade dull near the handle? Is the blade dull in the middle? Or at the point?
   5. Lay the knife blade on the stone across the end of the stone as shown on Chart No. 1.
   6. The handle should be in your right hand if you are right-handed and in your left if you are left-handed.
   7. Tip the blade slightly up at a 20° angle from the top surface of the stone.
   8. Begin with the blade near the handle of the knife as shown on the chart. Note: As a safety precaution in using knife, do not sharpen next to handle—allow about ½″.
   9. Move the knife down the stone in such a way that the point of the blade will be on the stone when it gets to the bottom of the stone. Hold the

(Concluded on page 42)

Demonstration Dish

PORK SAUSAGE CORN CASSEROLE

1 pound pork sausage
3 tablespoons sausage drippings
3 tablespoons flour
1½ cups milk
1 No. 2 can whole kernel corn
1 cup coarse cracker crumbs

METHOD OF PREPARATION

Form patties from part of meat. Brown rest of bulk sausage six to seven minutes.

Make a sauce of 3 tbsp. pork sausage fat, flour and milk. Stir and cook until thickened.

Mix cracker crumbs with rest of sausage fat. Arrange crumbs, corn, pieces of browned sausage and sauce in layers.

Top with crumbs. Place the sausage patties on top. Bake 30 minutes at 350°F. Makes 4 servings.

DEMONSTRATION POINTERS

1. Pork sausage should be freshly purchased. If kept more than two days, it should be frozen.

2. Sausage fat flavors the sauce. Blend fat, flour; add milk. Cook over a low heat.

3. Casserole can be greased if desired. Use an attractive dish which can be placed on table when food is served.

4. Link sausage, shown in the photograph, can be used instead of patties for topping.

meat

Custom in this country dictates that meals be built around the meat dish. Both the appetite's desire for savory, satisfying food and the body's need for high quality protein make this custom one which it is wise to honor

I. DEFINITION

Meat is the flesh of any animal used as food.

II. KINDS

A. Beef is the flesh of mature cattle. It is one of the meats eaten most extensively in the United States. The 1950 per capita consumption was expected to be 63.1 pounds, as compared with 3.9 pounds for lamb and mutton, 8.2 pounds for veal and 69.9 for pork.

B. Veal is the flesh of very young cattle. It differs in appearance and flavor from beef.

C. Pork is the flesh of pigs. Pigs also yield a large quantity of lard which is classified as fat rather than meat.

D. Lamb is the flesh of young sheep. Mutton is the flesh of older sheep. There is no definite age at which lamb becomes mutton. Like mature beef, mutton has a stronger flavor than meat from the younger animal. Very little is sold in the United States.

E. Variety meats or organ meats come from all the above types of animals. Liver, kidney, brains, heart, sweetbreads, tail, tongue and tripe fall into this classification.

F. Sausages are minced highly seasoned meat which is often stuffed into some kind of casing. Many popular types originated in Europe. Sausages which came from cooler countries are often of the cooked or smoked variety; those from southern Europe are of the dry type, which keeps better in warm climates.

III. NUTRITIVE VALUE

A. The Basic Seven includes one serving per day of meat, poultry, eggs, fish or an alternate as one section of the food wheel.

B. Nutrients in Meat

1. Protein—Meat is rich in high quality protein. As the fatness of meat increases, the proportion of protein and the minerals it carries decreases.

2. Fat—The amount of fat varies in different meats and in different samples of the same meat. Bacon, for example, is nearly all fat, while veal contains a relatively low percentage of fat. Fat increases the caloric value of meat, gives it a rich flavor and provides unsaturated fatty acids.

3. Minerals—Internal organs are especially rich in minerals. Liver contains over ten times as much iron as lamb, over five times as much as beef. Muscle meats are an important source of phosphorus and a good source of iron.

4. Vitamins—As in the case of minerals, the organ meats are the richest source of vitamins. The average muscle meat makes a significant contribution of vitamin G. Pork is a good source of vitamin B. Liver and kidney are important for vitamins A, B and G.

IV. BUYING

A. General Rules

1. Look for the U. S. inspection stamp. This shows that the meat has been inspected and passed as wholesome food.

2. Look for grades, if any. They are a guide to quality and to how the meat should be cooked. U. S. choice, U. S. good and U. S. commercial are the grades most commonly sold at retail. Brand names also indicate quality.

3. Compare prices. Cuts more in demand cost more. Meats in seasonal large supply cost less. Note proportion of waste.

4. Judge quality as indicated by appearance. Remember that less tender meat comes from muscles the animal exercised most in life—the flank for example. Tenderness also depends on the age of the animal and the way it has been fed.

5. Consider whether to buy fresh, canned or frozen meat. Canned meat has no waste and is not perishable until opened. Frozen packaged meats offer the same advantages if proper storage space is available. Packaged meat sold at self-service counters is convenient to buy and use.

B. What to Look for in Specific Meats

1. Beef is high quality when the lean is firm and fine grained, the marbling extensive and uniform, the fat firm, brittle and creamy-white in color.

2. Veal should be lean, fine textured

(Concluded on page 43)

By Donald K. Tressler
Consulting Food Technologist
Westport, Connecticut

Storing frozen foods in domestic refrigerators

THE public is sometimes misinformed concerning the proper use of refrigerators for the holding of frozen foods. Many electric refrigerators have a compartment of fair size labeled "Frozen Foods" or "Super-Freezer" in which the average temperature is only about plus 20°F. Because of the inscription on the door of this compartment, or perhaps because she was told by the refrigerator salesman, the housewife assumes that this space is satisfactory for the storage of frozen foods for an indefinite period. If she does hold her frozen foods at such a temperature for more than a day, she is sure to be disappointed in the quality of some of them.

Much of the misunderstanding concerning storage temperatures for frozen foods has come about because of a lack of appreciation of how and why these products deteriorate. Many persons assume that as long as foods are still in the hard frozen condition, they do not "spoil." Frozen food packers have helped to promote such ideas by stating that "frozen foods have all their goodness sealed in by 'quick freezing'."

It is true that frozen foods held at 15°F. or lower will not spoil through the action of microorganisms. However, although microorganisms will not grow at that temperature, many objectionable chemical and enzymic changes do take place. In most instances these undesirable chemical and enzymic changes are not evident to the eye and, since the housewife does not have any of the freshly frozen food to compare with, she may not note the deterioration until it becomes unpleasant to the taste.

The rate at which various frozen foods deteriorate differs greatly depending on the kind and condition of the food and the way in which it is packaged. Some foods, for example properly packaged roasts of beef, may be kept at 15°F. for two or even three weeks. Frozen peaches, on the other hand, oxidize readily and consequently darken and lose flavor relatively quickly.

Frozen poultry, because of the easily oxidizable fat just under the skin, changes in flavor quickly at 15°F. or above and takes on an unpleasant "cold storage" flavor. Fatty fish, such as mackerel and salmon change much more rapidly than lean fish, such as haddock and cod.

Freshly packed frozen foods retain flavor and color during storage in a household refrigerator or home freezer far better than foods which have been packed several months previously. In buying frozen foods during or just at the end of a packing season, it is well to ask whether the product is freshly packed or has been held over from the previous year.

Vitamin C (ascorbic acid) is easily oxidized and is quickly lost during storage of fruits or vegetables at temperatures above 15°F. In fact, chemists have found that vitamin C content is one of the best indices of quality of fruits or vegetables. If the vitamin C content of a frozen fruit or vegetable is high, we can be sure that either the product has been freshly packed or it has been held at a low temperature (0°F. or below). If the frozen vegetable has been stored at 15°F. long enough to lose some of its bright green color, an analysis will indicate the loss of a large proportion of the original vitamin C content.

The results of one experiment are given below. They show clearly the great loss of vitamin C from frozen green beans during storage at high temperatures. In one month at plus 16°F. or in 2 months at plus 10°F., green beans lost 40 per cent of their original vitamin C content.

At 20°F. or higher, frozen foods deteriorate in a few days. If the household refrigerator low temperature compartment maintains 15°F., many foods may be satisfactorily held therein for 2 or 3 weeks, but some, notably peaches, asparagus and green beans, show signs of deterioration in about 10 days at this temperature.

For longer storage of frozen foods, 10°F. or lower is required. And if the foods are to be held more than four months, the storage compartment temperature should not exceed 0°F.

Another point of importance in storing frozen foods is the uniformity of the temperature. Fluctuating temperatures in the storage compartment are undesirable because they promote desiccation and cause the minute ice crystals of "quick frozen" foods to grow larger. When foods which have been stored for longer than a few days in a compartment in which the temperature fluctuates more than plus or minus 2°F. are thawed, a considerable quantity of juice may be lost as "drip." This juice contains much of the flavor and also the moisture of the food. Thus foods that have been subject to fluctuating temperatures are likely to be dry and flavorless.

Foods to be used the same day as purchased may be placed anywhere in the refrigerator. Frozen roasts and roasting chickens may be kept 2 or 3 days on the refrigerator shelves. If the refrigerator is equipped with a meat drawer immediately under the frozen food compartment, it is suitable for storing these items for a week. In fact, if a roast is to be used within three days, it is better to store it on the refrigerator shelves, where it will thaw gradually, than it is to keep it frozen until cooking time. Regardless of whether the frozen foods are stored for a short time at below freezing temperatures, or slowly thawed in the main compartment of the refrigerator, frozen foods should be kept in their original wrappings or containers until ready for use.

One of the difficulties encountered in storing frozen foods in the ordinary household electric refrigerator is the care of the frozen foods during the frequent defrostings required by most types. If frozen foods are kept over during a defrosting period, the refrig-

(Continued on page 39)

By Grace F. Hinchliff
Assistant Professor of Home Economics
Marygrove College, Detroit, Michigan

ALL home management house supervisors are interested in teaching students to plan balanced diets on a moderately low budget. However, student managers often tend, in planning menus, to focus their attention on the cost of the food rather than its nutritive value because they have a limited amount to spend. Then, when the menu planning is done and they check their menus nutritionally, the results are often too lopsided.

Having struggled with such problems myself as the home management house supervisor at Marygrove College, I have been interested in the approach which is used by nutritionists in the public health department of the city. They put the horse before the cart, so to speak, and plan the number of pounds, or quarts, of food which should be included in the week's diet before they even begin to plan the menus. I saw no reason why the same plan should not work in a home management house.

To try out this idea, I planned a week's menu, as the student manager in the home management house would do, following as my guide the bulletin which is used by the nutritionists of the public health department.[1]

I used a low-cost food plan, and as there were six students to plan for, I looked first for a family of six in the bulletin. This one consisted of an active man, a moderately active woman, a boy 16 to 20 years of age, a girl 13 to 15, and children 7 to 9 and 10 to 12 years. The comparison was not exact, for the requirements of the active man and the boy of 16 to 20 were greater and those of the children less than those of the students. But since students in the home management house are all adults averaging about 21 and are moderately active, the amounts of food needed for the two groups were comparable. I then consulted the bulletin for the weekly cost of the food in the low-cost food plan and found that the range given was $28 to $31 at September 1948 city food price levels. I chose the top level of $31 to meet the higher prices of August 1950.

[1] Helping Families Plan Food Budgets, U. S. Department of Agriculture, Miscellaneous Publication, No. 662, 1948. Price 15 cents.

Group's Weekly Food Needs

The home management house group are all of the same age, sex and activity (women, moderately active). Hence, I calculated the weekly quantity needed in each group of foods by multiplying by six the information given in the bulletin for the moderately active woman.

As a result of these calculations, I found that six students would need the following amounts of food for a week:

Leafy, green, and yellow vegetables—13 pounds 8 ounces
Citrus fruits, tomatoes—12 pounds
Potatoes, sweet potatoes—18 pounds
Other vegetables and fruits—10 pounds 8 ounces
Milk—30 quarts
Meat, poultry, fish—12 pounds
Eggs—30
Dry beans and peas, nuts—1 pound 8 ounces
Flour, cereals and baked goods—19 pounds 8 ounces
Fats, oils—4 pounds 8 ounces
Sugar, sirup, preserves—4 pounds 8 ounces

Breaking Down the Food Groups

With these quantities in mind, I planned the menus for the week. To simplify the process, I broke down each food group, as suggested in the bulletin, into quantities needed of each individual food. For example, according to this plan, the group of six students required about 13½ pounds of leafy, green and yellow vegetables. I divided these as follows:

Pounds of leafy, green, and yellow vegetables:

Green cabbage	4
Lettuce, leaf	2½
Carrots	3
Snap beans	1
Green peas	2
Greens (spinach)	1
Total	13½

I broke down the rest of the food groups similarly. Then I planned the menus to fit this pattern, using the prices of August, 1950, and trying to keep within the allotted $31. For servings, I used as reference, *Food for Fifty* by Fowler and West, second edition, and *Food Values in Shares and Weights* by Clara Mae Taylor.

Menus

SUNDAY

Breakfast: orange juice, hot whole wheat cereal, white toast, margarine, milk

Lunch: cheese fondue, apple and cabbage salad, milk

Dinner: shoulder of veal roast, baked potatoes, carrot sticks, whole wheat rolls, margarine, ice cream

MONDAY

Breakfast: stewed apricots, cornflakes, whole wheat toast, margarine, milk

Lunch: vegetable soup, crackers, potato and egg salad, milk

Dinner: sausage and sweet potato casserole, grilled tomatoes, blueberry muffins, margarine, cookies

TUESDAY

Breakfast: apple sauce, rolled oats, white toast, margarine, milk

Lunch: macaroni with tomato sauce, buttered carrots, devilled eggs, milk

Dinner: beef loaf, creamed snap beans, buttered broccoli, brown bread, margarine, ice cream

WEDNESDAY

Breakfast: grapefruit sections, puffed wheat, plain muffins, margarine, milk

Lunch: potato soup, peanut butter and jelly sandwiches, cole slaw, milk

Dinner: veal breast stuffed, mashed sweet potatoes, buttered peas, whole wheat bread, margarine, baked custard

THURSDAY

Breakfast: stewed prunes, rolled oats, white toast, margarine, milk

Lunch: baked beans, bacon, sliced tomatoes, blancmange, milk

Dinner: chuck roast, brown potatoes, creamed onions, hot biscuits, margarine, ice cream

FRIDAY

Breakfast: orange juice, wheat flakes, corn meal muffins, margarine, milk

Lunch: spaghetti with cheese, scrambled eggs, wafers, milk

Dinner: baked whitefish, scalloped potatoes, buttered carrots, bread, margarine, chocolate pudding

SATURDAY

Breakfast: bananas, whole wheat cereal, white toast, margarine, milk

Lunch: tomato soup, bacon, graham crackers, milk

Dinner: ground beef patties, baked sweet potatoes, chopped spinach, buttered rolls, Floating Island

Coffee and tea are not included in these menus.

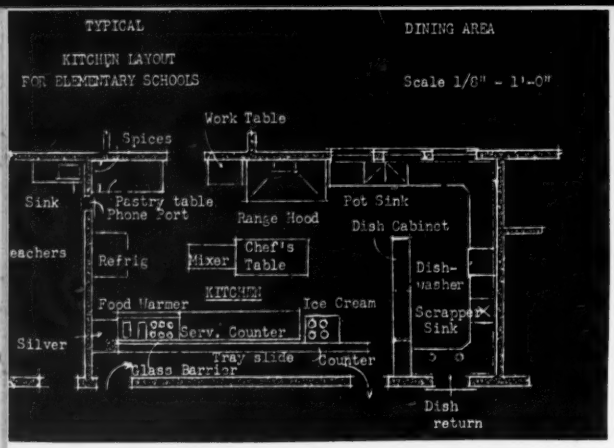
The amounts of each food group needed by the six students were adhered to, as in the example given. The cost is shown in the following:

Leafy, green, and yellow vegetables:	*pounds*	*cost*
Green cabbage	4	$ .14
Lettuce, leaf	2½	.48
Carrots	3	.30
Snap beans, frozen	1	.40
Green peas, frozen	2	.40
Spinach, frozen	1	.27
	13½	
Citrus fruits, tomatoes:		
Oranges	6	1.38
Grapefruit, canned	1	.20
Tomatoes		
Fresh	4	1.16
Canned	1	.23
	12	
Other vegetables and fruits:		
Vegetables, fresh		
Onions	3	.23
Broccoli, frozen	1	.53
Fruits, fresh		
Bananas	2	.32
Apple sauce	1½	.27
Fruits, dried		
Apricots	2	1.07
Prunes	1	.22
	10½	
Milk equivalent:	*quarts*	
Evaporated milk—2-14½ oz. cans equivalent to	1½	.25
Whole milk		
To drink	21	3.78
For cooking	5	.90
Cheese—5 ounces equivalent to	1	.13
Ice cream—3 quarts equivalent to	1½	.87
	30	

Potatoes, sweet potatoes:		
Potatoes	12	.69
Sweet potatoes, canned	6	1.68
	18	
Meat, poultry, fish:	*pounds*	
With bone	6½	3.50
Boned	5½	3.15
	12	
Eggs:	*eggs*	
	30	1.40
Dry beans, peas, nuts:	*pounds*	
Beans, navy	1	.13
Peanut butter	½	.23
	1½	
Flour equivalent:	*pounds*	
Cereals		
Hot whole wheat	4	1.04
Ready-to-eat	1	.29
Rolled oats	4	.48
Bread and other baked goods		
Bread—7½ pounds equivalent to flour	5	1.50
Macaroni	2½	.43
Crackers	½	.16
Spaghetti	2½	.43
	19½	
Fats, oils:		
Margarine	3	.87
Bacon	1½	.89
	4½	
Sugar, sirup, preserves:		
Sugar	4	.40
Jelly	½	.14
	4½	
	Total	$30.94

The total cost for the week's menus amounted to $30.94. The plan called for a large amount of the food group, *flour equivalent.* This was necessary at the low cost level, and it would have been very difficult to keep within the budget if there had not been a large amount of these items. The cuts of meat chosen were of the less tender and, consequently, cheaper type, for the more expensive cuts could not be afforded at this cost level. The menu lost no nutritional value, however, by the use of the less tender cuts. The bulletin gives similar information for the moderate-cost plan, which could be used for alternate weeks.

This approach to the problem would enable the student manager to know, when she purchased her food for the week, that she was meeting the nutritive requirements for her group, within the money allowed. She would have a guide to follow every step of the way and, as a result, her budgeting would be a boon to herself and to the group she was serving in the home management house.



layout for a school lunchroom

By C. M. Davis
Supervisor, Student Body Services
Los Angeles City Schools, California

WHAT type and amount of cafeteria equipment do elementary schools need? To answer this question, the following study was conducted during the school year 1949-50 by the Cafeterias Committee of the California Association of Public School Business Officials. For several years this association has been interested in the layout and equipment of cafeterias. The accelerated growth of elementary schools and the increased importance of cafeterias prompted a study that would be of practical help to those responsible for the layout and equipment of cafeterias on the elementary level.

The committee, composed of Clifford Davis of Los Angeles, Oliver C. Lawson of Santa Ana and Edwin C. Niccolls of San Francisco, under the chairmanship of Edith T. Bethard of San Diego, approached this problem with two basic questions: (1) What are the objectives of the school lunch program? and, (2) How can these objectives be furthered through the layout and equipment of the school cafeteria?

The answer to the first question was found in current literature in the field of the school lunch. The committee formulated it as follows:

The objectives of a school lunch program are (1) To make available at minimum cost lunches of maximum nutritive value prepared under sanitary conditions; (2) To train children in intelligent discrimination in the selection of food; (3) To give them an opportunity to learn to eat different kinds of food; (4) To aid in social development.

The answer to the second question was resolved from a questionnaire designed by the committee and sent to 36 school systems in California from which 25 returns were received. Details of the questionnaire and its answers are too lengthy for this article. A summary of the important findings is presented and a typical kitchen layout and pre-rinse device for elementary schools prepared by the San Diego Unified School District is shown.

Basic Cafeteria Plans

Certain decisions influencing the cafeteria's equipment should be made when plans for the building are drafted. The Committee felt a survey of conditions in other schools would help in making these decisions as well as in choice of equipment.

1. Is the cafeteria to be in an elementary or secondary school?
2. Will it be easily accessible to all students?
3. What will be the extent of use by the community?
4. Will the cafeteria be a separate unit or a cafeteria-auditorium unit?
5. What accommodations will be provided for children who do not eat in the cafeteria?
6. How many students are to be served?
7. How many lunch periods are planned?
8. How long will each lunch period be?
9. What type lunch is to be served?
   a. Plate lunch only.
   b. Plate lunch and *a la carte*.

These questions must be answered before the number of service lines and the quantity and size of equipment can be determined.

The Committee realized that cafeterias must be conveniently located, well-lighted, properly ventilated, cheerful, and attractive to both students and employes. It is difficult to adopt a standard plan because school buildings are not of standard size and the number of children attending the various schools is not uniform. Therefore, each lunchroom must be individually engineered to fit the neighborhood which it is to serve. However, the Committee felt that the type and amount of equipment can be standardized to a certain degree.

Answers to Questionnaire

The questionnaire covered seven major divisions pertinent to cafeteria planning; General Information; Dining Area; Serving Area; Food Preparation; Dishwashing Unit; Food Storage; Employee's Rest Rooms.

A. General Information. Questions 1 to 14, inclusive, relate to some of the decisions to be made before the cafeteria is built. These answers show an average that seems feasible. However, each district must make its own decisions. The last column shows the number of schools making the tabulated reply.

Question	Answer	No. of schools
1. a. How small an enrollment will support a cafeteria?	400-500	6
b. What % enrollment participates in school lunch?	21-30%	9
2. For what % enrollment do you provide seating?	30-39%	9
3. Number of square feet in dining room per child served?	10-12	10
4. Number of square feet in dining room?	1000-1999	8
(Some suggested obtaining area by multiplying 30% enrollment by 10 square feet)		
5. Number of square feet in kitchen	401-600	6
(Area can be estimated by planning on 60% of dining room or 1½ square feet per person)		
6. Is service line placed in dining room?	Yes	6
(Four schools had separate service lines)		
7. Is service line in kitchen?	Yes	8
(Some thought it should be separate)		
8. Is dining room ceiling soundproofed?	No	15
(Some thought it should be)		
9. Is kitchen ceiling soundproofed?	No	17
10. What areas of dining room are tiled?	None	19
(One was tiled around fountain and washbasins)		
11. What areas of kitchen are tiled?	None	18
(One was tiled behind stove to wainscoting and some new schools had tiling behind sink.)		
12. Indicate type of floor surface in dining room:		
Asphalt tile		12
Preference for asphalt tile (3 also liked linoleum.)		17
Cement subflooring		7
13. Type of floor surface in kitchen		
Asphalt tile		9
(Preference for asphalt tile and linoleum indicated. Subflooring same as in dining room)		

14. Equipment included in the building contract:

Equipment	Number of schools
Dishwashing machine	13
Food warmer	9
Sinks	22
Counters used with sinks	22
Hoods	23
Milk dispenser	5
Stoves	12
Mixers	10
Refrigerators	10
Bake ovens	8
Ice cream cabinets	6
Cash registers	2
Pan rack	4
Steam table	4
Cooler	3
Hand truck	3
Heaters—booster	3
Potato peeler	2
Salad tables	2

B. Dining Area. The questionnaire shows that acoustical material should be used on the ceiling to reduce the noise; asphalt tile on cement sub-flooring. One District reported the use of tile placed around the fountain and wash basins. The Committee suggests the finishes of the room be as light and cheerful as possible by using light plaster wall colors, light asphalt tile and light colored tables and chairs.

C. Serving Area. Six Districts place the service line in the dining room, 8 Districts place it in the kitchen and 4 place it separately. There are advantages in placing the service line in the kitchen, i.e. cost is lessened by the square footage saved, kitchens are kept much neater to present an attractive appearance to patrons, and cafeteria help can be used more efficiently. As shown in the report, the height of the counter varies from 30 inches to 3 feet and the tray rail from 28 inches to 3 feet. The Committee feels that this is a very important decision to make. A simple method to assist in this decision is to bring the smallest little girl and largest potential football player into the service line. Decide on the height of the counter which will enable the tiny girl to see the food and still keep the large boy from feeling that cafeterias are built only for small children. Sneeze barriers, warming ovens, ice cream cabinets, etc. are shown in this report.

D. Food Preparation. This area includes the chef, salad and pastry units. These units should be so planned that there will be a minimum of lost traffic between them. See plan in illustration showing the preparation area used in San Diego elementary schools.

Galvanized gas ranges with 2 ovens (number of open and closed burners varies) are used; however, there is a preference shown by some for stainless steel ranges. Bench type vegetable peelers are desired. Only 5 Districts used steamers, four of which are gas-operated and one steam-operated.

The pastry department uses bake ovens in 11 Districts and mixers, all gear type, in 18 Districts. The decision to use bake ovens depends on the type lunch served. Pot and pan racks are perhaps necessary in a commercial feeding program, but as they are unsightly, arrangements can be made for individual units to store their utensils in drawers and cupboards.

E. Dishwashing Unit. Stainless steel, spray type, temperature controlled dishwashing machines are preferred; some schools use semi-automatic and others fully automatic. Nine Districts use the pre-rinse sink and four other methods are reported. The height, width and length, particularly length, of the dishwashing counter are important as dishes should not be toweled but dried in trays.

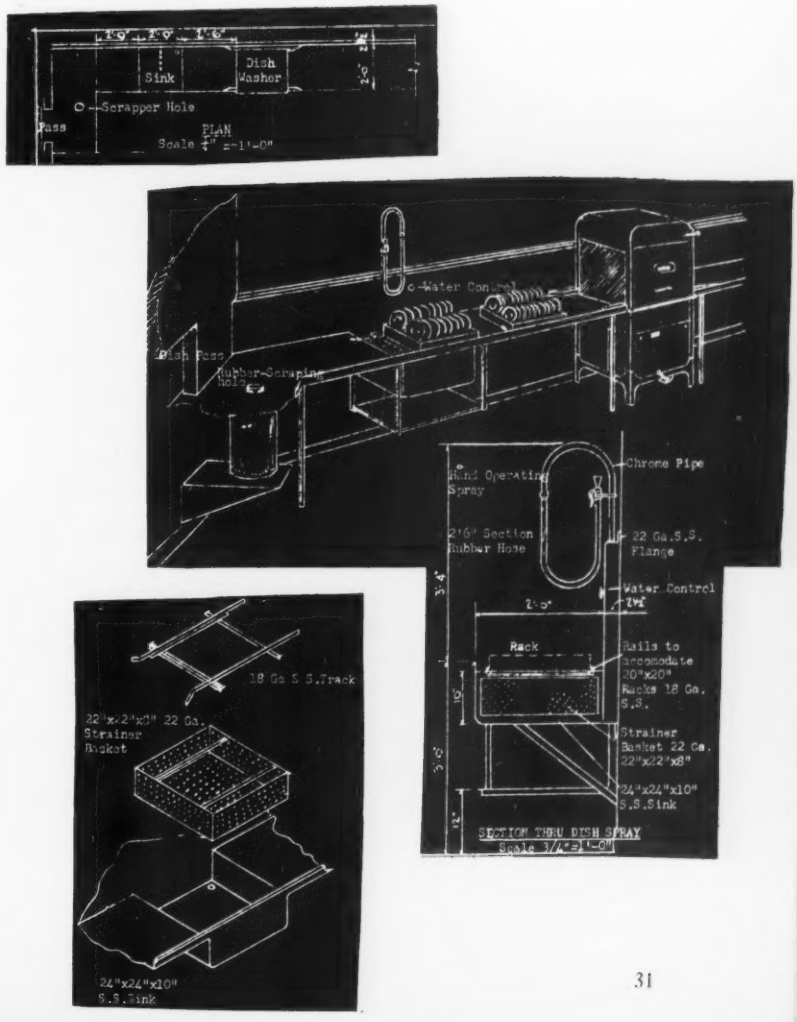
The dishwashing area must be adequate to serve the school satisfactorily and meet all requirements of the Health Department. To do this water must be 140 degrees for washing the dishes and 180 degrees for rinsing. This creates a problem. One solution is to use two tanks—an instantaneous hot water heater and a storage tank. To reduce temperature of water for all uses other than rinsing dishes, a mixing valve is placed between instantaneous heater and storage tank. This is more economical than two water systems or one large water heater with one small booster. The pre-rinse device for the dishes is essential. Different devices are used. The pre-rinse sink in the accompanying illustration shows one type. This method saves labor and is economical.

F. Food Storage. This section should be carefully planned. The largest number of districts use 112-150 square feet in the storeroom; however, one district has used 1320 square feet. This depends on the size of the school. When planning the shelving in the storeroom, the space between shelves should be studied so there will not be waste space. The top shelf should be as accessible as possible. Separate vegetable storage is used by 8 Districts and only 2 use vegetable bins. A vegetable bin should be constructed so that it will be easily accessible and placed where it will have a circulation of cool air at all times.

Only 2 Districts use walk-in refrigeration. The majority use either a 20-30 or 30-50 cubic foot box which is self-defrosting with compressor enclosed in refrigerator unit. The exterior and interior finish is enamel.

G. Employes' Rest Room. There should be either individual lockers or a single locker sufficiently large to accommodate the number of cafeteria employes in that school.

No doubt we in our experiences will be like the man who has built the shelving and counters in more than 20,000 stores, but yet has the first one to build without mistakes.



FEBRUARY school lunch menus

DATE	SOUP....8c	HOT DISH WITH MILK.....25c	SALADS..15c	SANDWICHES..8c	DESSERTS..8c
1	Tomato	Tomato Juice, Chicken Pin Wheel, Biscuit*, Mushroom Sauce, Peas, Pineapple Salad, Cooky	Molded Orange	Barbecue Jelly	Ice Box Cake
2	Oyster Chowder	Cheese Strata, Bacon Strip, Vegetable Salad, Baked Apple	Frozen Fruit	American Cheese Jam	Steamed Date Pudding, Foamy S.
5	Scotch Broth	Baked Stuffed Pork Chop, Glazed Sweet Potato, Roll*, Cranberry Betty ★	Gingerale	Luncheon Meat Prune and Nut	Strawberry Tart
6	Vegetable	Tomato Juice, Hot Beef Sandwich*, Gravy, Stuffed Celery, Cherry Fluff	Apricot and Nut	Cheese Vegetable Jelly	★Variety Cup Cake
7	Clam Chowder	Orange Juice, Turkey Pie with Vegetables, Biscuit Crust, Cranberry Sauce	Shredded Cabbage & Pineapple	Pimiento Cheese Fruit Spread	Raspberry Whip
8	Cream of Carrot	★American Chop Suey, Green Salad, ★Bran Muffin*, Fruit Cup	Orange & Grapefruit	Lettuce Egg Salad	Spice Cake
9	Cream of Corn	Fish Fillet in Barbecue Sauce, Baked Baked Potato, Green Beans, Oatmeal Cooky	Under the Sea Pear	Chopped Ham & Pickle; Cream Cheese & Cherry	Chocolate Cream Pie
12	Chicken Vegetable	Cheeseburger Roll*, Sliced Tomato, Fruit Cup	Asparagus	Peanut Butter Jam	Cranberry Chiffon Pie
13	Beef	Roast Fresh Ham, Franconia Potato, Squash, Whole Wheat Bread*, Applesauce Shortcake	Tomato Wedges with Chicory	Corned Beef Cream Cheese & Date	Chocolate Chip Cake
14	Cream of Vegetable	Orange Juice, Hot Turkey Sandwich*, Gravy, ★ Cranberry Harvest Pudding	Stuffed Plum	Egg, Olive & Sardine, Jam	Apple Pie
15	Onion	Lamb Fricassee on Mashed Potato, Vienna Bread*, Fresh Apple	Stuffed Peach	Sliced Tongue, Rye Cream Cheese, Olive	Sponge Cake
16	Tomato	Tuna Croquette, Cream Sauce, Lima Beans, Roll*, ★Cherry Sponge	Chef	Peanut Butter and Honey; Jelly	Cherry Sponge
		Midwinter Vacation			
26	Vegetable	Baked Macaroni and Cheese, Spinach, Fruit Salad, Raisin Bread*	Stuffed Tomato	Celery & Bacon Jam	Gingerbread, Whipped Cream
27	Cream of Corn	Hamburg Loaf, Tomato Sauce, Baked Potato, String Beans, Butterscotch Pudding, Bread*	Waldorf	Lettuce Cream Cheese & Relish	Apple Cobbler
28	Vegetable Beef	Pot Roast, Mashed Potato, Carrots, Apple Bread*, Cherries	Minted Fruit	American Cheese Jam	Blueberry Pie

* Butter served on all breadstuff. S=Sauce

and quantity recipes

By Marion L. Cronan
Director of School Lunch
Brookline, Massachusetts

Note: These menus meet the requirements of the Type A Federal Lunch Pattern. They are served as B Lunches in the Brookline Elementary Schools by reducing the protein to one ounce, fruit or vegetables to ½ cup and fortified margarine to one teaspoon. Milk is served with both A and B Lunches. To encourage sale of the hot plate a simple dessert is often served with the meal. These recipes have been tested in the Brookline Schools.

★ Bran Muffins

- 1¾ qts. bran
- 5 cups water
- ¾ cup fat
- 2 cups sugar
- 1½ cups molasses
- 1¾ qts. flour
- 6 tbsp. baking powder
- 1 tbsp. salt
- ¾ cup dried eggs
- 1¾ qts. raisins
- 1 cup dried milk
- 2 cups water

Soak bran in water 5 minutes. Add fat, sugar and molasses. Mix sifted flour with baking powder, salt, dried eggs and raisins. Add to the first mixture. Add reconstituted dried milk. Stir only until flour is absorbed. Scoop into greased muffin tins using #16 scoop. Bake at 400°F. 25-30 min. *Makes 50.*

★ American Chop Suey

- 2 cups dehydrated onions
- ½ lb. bacon
- 2 cups chopped peppers
- 7 lbs. hamburg
- 3½ lbs. elbow macaroni
- 1 #10 can tomatoes
- ½ #10 can tomato puree
- 2 tbsp. salt
- 1 tsp. pepper

Soak dehydrated onions in water 5 minutes. Grind bacon and saute with onions until brown. Add peppers and hamburg and fry until meat is cooked. Cook macaroni in boiling salted water 8 minutes. Wash and drain. Add tomatoes, tomato puree and hamburg mixture. Heat thoroughly and serve. *Makes 50 servings.*

★ Cranberry Betty

- 1 cup butter
- 2 qts. bread crumbs
- 1 #10 can apples
- 1 #10 can cranberry sauce (jellied)

Melt butter and add the crumbs, stirring well. Put a layer of the crumbs in a buttered casserole, then a layer of apples. Dot each layer generously with bits of cranberry sauce. Add more crumbs and fill the pan in alternate layers. Dot with butter and bake ¾ hour in a moderate oven (350°F.). *Makes 50 servings.*

★ Cranberry Harvest Pudding

- 2 qts. dried bread crumbs
- 1 qt. flour
- 2 qts. brown sugar
- 2 lbs. butter
- 2 #10 cans cranberry sauce

Mix bread crumbs, flour, sugar. Cut in butter until crumbly. Place half of mixture in 8 x 8 inch greased baking dish. Cover with cranberry sauce. Top with balance of mixture. Bake 45 minutes at 350°F. Serve with foamy sauce. *Makes 50 servings.*

★ Variety Cup Cakes

- 1½ cups shortening
- 1½ qts. cake flour
- 3 tbsp. baking powder
- 1 tbsp. salt
- 3¾ cups sugar
- ½ cup dried milk
- 2¼ cups water
- 6 eggs
- 1 tbsp. vanilla

Soften shortening until pliable. Mix and sift flour, baking powder, salt and sugar over shortening. Add reconstituted milk. Beat at low speed for 2 minutes. Add unbeaten eggs and vanilla. Beat 2 minutes longer. Scoop into greased muffin tins using #24 scoop. Bake 20 minutes at 350°F. *Variation:* Add 1½ cups of chocolate bits to one half of recipe. Add 1½ cups chopped nuts or raisins to remainder of batter. *Makes 50.*

★ Cherry Sponge

- 2 #10 cans red sour cherries
- 8 cups sugar
- 3 cups cornstarch
- 5 qts. cherry juice and water
- 1 qt. egg whites
- 2 tbsp. cream of tartar
- 1 tbsp. salt
- 4 cups sugar
- 1 tbsp. vanilla
- 1 qt. flour

Bring to a boil the cherries, sugar and cornstarch (well mixed), and juice. Turn into large baking pans. Beat egg whites until light. Add cream of tartar and salt and continue beating until eggs hold up in peaks. Add sugar gradually until mixture is stiff and glossy. Fold in vanilla. Sift flour slowly over eggs, folding in lightly. Cover fruit mixture with batter. Bake in a slow oven (325°F.) for 25 minutes. *Makes 50 servings.*

By Christine B. Clayton
Formerly Dean of the School of Home Economics
Utah State Agricultural College, Logan, Utah
Recently Visiting Professor, Temple University

nutrition high lights

Recent and future advances in nutrition and a plan for applying this science in malnourished Puerto Rico are Dr. Clayton's topics this month

AT a meeting of the New York section of the American Chemical Society reported in *The New York Times* of November 11th, Dr. Charles Glen King, scientific director of the Nutrition Foundation and professor of chemistry at Columbia University, spoke of the advances made in recent years in stamping out the three nutritional deficiency diseases, rickets, pellagra and scurvy. "These three diseases have almost disappeared," he stated. Goiter, nutritional anemia and tooth decay, while still prevalent, are yielding steadily to advances in basic research and technology. The foods which are contributing most to this public health program are vitamin D milk, iodized salt, enriched bread, citrus fruits and juices, frozen green vegetables and fluoridized water supplies.

The Next Great Advances

Dr. King predicts that the next great advances in the science of nutrition will be made against diabetes, hardening arteries, overweight and heart disease.

In the prevention of tooth decay one should not place too much reliance on any one single dietary factor. The addition of fluorine to water supplies is not sufficient protection in itself, Dr. King emphasized, nor is it usually available to people in rural sections. Nutrition scientists are generally agreed that a regular diet of excellent quality exerts a marked protective effect both in building and in maintaining healthy teeth. This desirable diet together with the benefits of good oral hygiene and fluoridized water keeps the defenses of the tooth high, both internally and externally.

Interdependency of Nutrients

In the light of present knowledge, single dietary factors and their influence on health are seldom considered alone. Nutritional research shows clearly the interdependency of many nutrients in normal building and functioning of the body. An example is the case of teeth where calcium, phosphorus, vitamins A, C and D, fluorine and many little-known minerals probably used to give a harder and more resistant covering to the teeth must be present for a complete tooth. The absence of any one of these nutrients will result in a weakened tooth.

In blood formation we have another example of many nutrients working together. Two of the newest members of the B-complex, folic acid and B_{12}, have been found to function closely with vitamin C, while a nutrient called choline functions with iron, copper, cobalt, the amino acid methionine and other essential amino acids to complete the formation of the new blood cells.

A Practical Nutrition Program

Public health workers have long known that malnutrition is one of the major health problems in Puerto Rico. The full extent of the problem could be made known only by careful research methods such as a study of living conditions with special attention to the family diets. Such a study was made under the direction of Dr. Lydia Roberts, formerly of the University of Chicago, and R. L. Stefani. The results of their study have been published in a bulletin entitled *Patterns of Living in Puerto Rican Families in 1949.**

This study shows that although a small proportion of families in the upper income brackets enjoy a generous diet with ample quantities of meat, eggs, milk and other staples and even luxury foods, more than two-thirds of the families are subsisting on diets that are plainly inadequate in some or even in all of the dietary essentials.

The typical diet of the majority of families consists largely of white rice, red kidney beans and "viandas," (starchy fruits and vegetables). To these foods are added variable amounts of lard, sugar and coffee for flavor. Small amounts of codfish are used whenever it can be obtained. The foods usually included under the list of "protective" foods—milk, eggs, fresh fruits and vegetables—are meagerly used by the majority of families and are seldom available at all to the lowest income group. Nutritional deficiencies follow inevitably when such poor diets are the rule.

Under WHO and FAO programs the world over, when family income is largely responsible for inability to provide a diet compatible with health, the usual procedure is to make a great effort to increase the incomes among the rank and file of families. Government activities directed toward this end are now being undertaken in Puerto Rico. It will, of course, take years to achieve the necessary goal.

In all the Puerto Rican families studied, at least 40 per cent had annual incomes of less than $500. This low income level must be raised before milk, eggs and fresh fruit and vegetables are available in sufficient quantities to protect the majority of families from deficiency diseases. On the day that food records were taken for this study, 73 per cent of the low income group had no meat, fish or poultry in the day's meals. Surprisingly, in this same group 44 per cent had no bread; 96 per cent had no fruit; and 88 per cent had no vegetables except "viandas." Improvement in the diet invariably kept pace with increases in the family income.

The monotonous meals made up from this diet generally follow a pattern of coffee and starchy vegetables for breakfast; for lunch, rice, beans and "viandas" and sometimes a little codfish. For 80 per cent of the group, supper consisted of rice, beans and "viandas."

It is easily seen that these diets lack good quality protein, are low in calcium, riboflavin and vitamin A. They are also low in many other dietary essentials.

Increased food production, better transportation and distribution of foods, better methods of storage and preser-

(Concluded on page 41)

* Reported in *Nutrition Reviews*, November 1950, University of Puerto Rico, Pio Piedras, P.R.

The Vow that killed Jack Frost

HERE'S HOW
FROST-FREE
WORKS
When frost starts to build up BUTTON SIGNALS TO HEATER which warms refrigerant
Warm refrigerant flows through coils of Freeze Chest, FROST QUICKLY MELTS, FREEZE CHEST STAYS COLD
Defrost water drains to unit compartment IS EVAPORATED AUTOMATICALLY
FROST-FREE
THE WORLD'S FIRST AND ONLY FULLY AUTOMATIC REFRIGERATOR
...of course, it's electric!
MEAT KEEPER
HUMIDRAWER
HUMIDRAWER

12 years ago, Westinghouse engineers vowed to solve the one big remaining problem of electrical refrigeration.

They vowed to eliminate the mess and work of defrosting . . . to develop a system that would keep refrigerators free of frost *yet keep frozen foods*—even ice cream—*safely frozen.*

They worked with the Westinghouse Home Economics Institute on one system, then another . . . discarded every idea except one basic fact:

Frost is caused by warm air, which enters the refrigerator when the door is opened. Moisture in the air collects on the cold freeze chest as frost.

The Home Economists helped them establish that frost does not start to build up until after 60 door openings. "Why then," they asked, "don't you defrost before frost builds up?"

A door counter was built. It counted 60 door openings, then automatically signaled a small heater attached to the refrigerant coils outside the food compartment. As the refrigerant was warmed, frost melted quickly. As soon as the frost was gone, the heater shut off and the refrigerator returned to normal operation. All frozen foods—even ice cream—stayed safely frozen.

The rest was simple. Frost water was drained through a tube to the unit compartment. There it was evaporated automatically.

So was born "Frost-Free" . . . the only automatic defrosting refrigerator that counts . . . the only automatic defrosting refrigerator that is protected against imitation by two U. S. Patents, Nos. 2,459,173 and 2,324,309.

A vow made 12 years ago has killed Jack Frost.

TEACHING AIDS AVAILABLE FOR CLASSROOM USE

Teachers' Reference Handbooks, free student fact folders and other teaching materials are available. Send for Teaching Aids Catalog and Film Catalog. For more information write Consumer Service Department, Westinghouse Electric Corporation, 302 East Fourth Street, Mansfield, Ohio.

YOU CAN BE SURE..IF IT'S Westinghouse

what's going on in foods

BY PATRICIA APPLEYARD

INCOME, family size and the education of the homemaker affect the adequacy of family diets, USDA figures show. Home production is an additional factor in rural areas.

Higher incomes are a major reason for better diets in American homes during recent years. Similarly, decreasing family size has tended to improve diets. At a given income, small families usually eat better than large ones.

An example of how diet improves with education is shown in the case of ascorbic acid intake by urban families in one income bracket. It was adequate in 94 per cent of the families where the homemaker went to college, 85 per cent where she had gone to high school and 73 per cent where she had elementary education. The college women had somewhat smaller families, but the other two groups were about equal.

Better Mixes

Nothing good ever stands still, releases from two different cake manufacturers remind us. Both companies have recently made improvements in their popular mixes.

The new high-ratio Swans Down instant cake mix is said to give sweeter tasting, moister cakes which stay fresh longer and are fifteen per cent larger than before. Only milk is added for a basic white cake, but each package gives directions for three variations—cocoa cake, yellow cake and spice cake.

The Duff people, who tell us they were the first to manufacture packaged mixes, have made changes in three of their products—the layer cake mix, the spice cake mix and the chocolate devil's food mix. The new Duff cakes are higher, lighter and have a better texture than ever. They, too, are prepared by adding milk to the mix.

Cook Beans Faster

Dry beans do not have to be soaked overnight before they are cooked, food specialists of the BHNHE report. In fact, beans taste as good or better when prepared by a faster method worked out in the bureau's kitchens. Their recipe is to add two cups beans, sorted and rinsed, to six cups of water. The beans are boiled two minutes, then removed from the stove and allowed to soak one hour. The specialists recommend cooking in the water used for soaking to retain minerals, vitamins and flavor. This method has been successful with navy or pea beans, pintos, great northerns, red kidneys and large limas.

Teeth and Acid Fruits

Erosion of teeth as a result of drinking acid beverages has been reported in both animal and human research. It has been assumed that acid fruits have the same effect on teeth as the beverages made from them. However, recent studies by Carey D. Miller of the Hawaii Experiment Station indicate that this may not be true. Her experiments, done with rats, show that the fruits themselves cause markedly less tooth erosion than their juices. The rats were fed several fruits common in Hawaii, both in solid form and as juices. The fruits included grapefruit, guava, java plum, mango and pineapple.

Thermostabilization

Thermostabilization is the new name for an old method of preserving eggs which is now being streamlined by the USDA. The original method, used over a hundred years ago, was to dip eggs in boiling water for twenty seconds and then to store them, well dried, in finely sifted ashes. In experiments recently made, eggs were dipped in oil instead of water. The oil was heated to a carefully regulated temperature considerably under the boiling point of water and the eggs were held there for a longer time than the old formula specified. Comparative tests show that eggs treated by this method will keep better than either untreated eggs or those given an ordinary oil treatment. When grade A eggs were stored in each of these three ways for eight months, 46.7 to 62.5 per cent of the thermostabilized eggs were still grade A at the end of the period, while only 1.7 per cent of the untreated eggs and 42.2 per cent of the oil treated eggs retained this high quality.

A few of the many variations which can be made from the new Junket coconut fudge mix are shown *above*

Food Flashes

- Spices are now available in liquid form. The Vanguard Associates, who make the products, point out that they are easy to use and of standard strength. A complete line, ranging from anise to tumeric, is being offered.
- Imports of tea have been climbing steadily since the end of World War II. In the year ending July 1950, they reached a record high of 104½ million pounds, the Office of Foreign Agricultural Relations reports. However, the average person is using only 2/3 pound a year, compared with the 4/5 pound consumed in 1941 when the previous high was reached. This decrease in per capita consumption is due to the increase in population since 1941.
- Celery, like so many other plants, was first cultivated as a medicinal herb. It originated in North Africa and Asia and was cultivated in Europe as early as the 17th century. The celery industry in the United States dates from 1880.
- For institutional users, the Jell-O people have developed a new 24 ounce package which requires the same amount of water and produces the same yield as the previous 26 ounce package. The new Jell-O also has more natural fruit flavor, a shorter setting time and a longer melting time.

a homemaker views advanced study

(Continued from page 16)

receives from such courses, the family actually is money ahead. I am convinced it pays in more ways than one. In the field of consumer education, I had an opportunity to measure the dollars and cents benefits.

Let's say the family is about to buy a living room suite. Many women, without the benefits of special training, can go to the store and select beautiful furniture, but more times than not, when budgets must be considered rather carefully, some consumer education on the subject will result in more for the money and greater satisfaction with the article ultimately purchased.

I have learned to buy from reputable firms. I know how to select a suite that will go with draperies, woodwork and other furniture. I have learned to look at the material closely, the webbing, the springs, the padding. Finally, when I make a choice, I am satisfied I have obtained the most possible for the money, and convincing oneself and the rest of the family of that fact is important.

Whether I choose to work or stay home and do a better job of being a homemaker, I feel that college graduate work has made a big contribution to my life. Whether it is the ability to cook a better meal, save the family a few dollars on purchasing furniture, or being able to meet and solve some of the normal family problems all of us encounter, the satisfaction is stimulating.

The friends I have made, and my association with the instructors with whom I have been privileged to work, have been a source of inspiration and confidence. Learning how to crochet under the guidance of Dr. Millie Pearson was pleasant, but the opportunity to associate with her in her home was more so. Remodeling hats and reviving artificial flowers in our nightly visits with Dr. Lela O'Toole, and making fancy dishes of noliday candies with Miss Rowan Elliff were more than class sessions with our instructors. To me it was an opportunity to see education at work in the home, and through this personal counsel and teaching, I know I can make our home a better place to live.

●

Worth Repeating

"I see that the fashion wears out more apparel than the man."

—William Shakespeare in *Much Ado About Nothing*

Patricia Collier suggests

Dole Cocktail Coleslaw

—a new version of an old favorite

Says Patricia Collier,
DOLE Home Economist,
215 Market Street,
San Francisco 6, California.

"Five luscious fruits go into DOLE Fruit Cocktail—peaches, pears, cherries, grapes, and DOLE Pineapple. By our exclusive process, whole peaches and pears are gem-cut into firm, glistening cubelets. No fragments of fruit to mush-up and cloud the delicious syrup. Uniformity of the entire pack is assured by control stations strategically located along the line."

This crisp, colorful winter salad is perfect for buffet and large quantity service as well as family style, because it can be made in advance and holds up well without wilting. Just multiply the amounts given 3 times to serve 25 persons, or 6 times for 50.

And now for the simple recipe:

Cocktail Coleslaw

1 small, firm head of cabbage (about 6 cups chopped)
1 cup commercial salad dressing
3 tablespoons lemon juice
1 teaspoon prepared mustard
1 teaspoon salt
1 teaspoon celery seed
1 No. 2½ can (3½ cups) DOLE Fruit Cocktail, drained (reserve ½ cup of fruit for garnish, if desired)
Lettuce for garnish, or save outside leaves of cabbage

With a sharp French knife, cut cabbage in quarters and remove core. On a wooden board, slice each quarter very thinly, using the same motions as when cutting bread. Then chop crosswise to desired fineness. Transfer cabbage to a large bowl and add drained DOLE Fruit Cocktail.

Mix together salad dressing, lemon juice, prepared mustard, salt, and celery seed. Add gradually to the cabbage and cocktail, tossing lightly with a salad fork and spoon until all is coated (you may not need all of the dressing, depending on the size of the head of cabbage you use). Serve in an attractive bowl garnished with lettuce or outside leaves of cabbage and remaining fruit cocktail. Serves 8.

For two delicious menu combinations try DOLE Cocktail Coleslaw with baked ham or ham loaf, scalloped potatoes, warm gingerbread and whipped cream; another time, serve with chili con carne over rice, and chocolate layer cake topped with toasted almonds.

what's going on in the home

BY LOIS COOK

A METHOD of wool blanket washing known as "soak laundering" has been developed which eliminates the hazard of matting and shrinking. Elaine Knowles Weaver of the Ohio Experiment Station developed the idea of removing soil by soaking rather than agitation after 500 laundering tests of new and used wool blankets in different washers. New blankets shrank only a trifle or not at all and used blankets, badly shrunken in previous laundering, were reconditioned and elongated four to six inches when finished by stretching and brushing. Directions for this method are as follows:

1. Fill washer with lukewarm water, add a low-sudsing detergent and dissolve by running the machine a few seconds.
2. Submerge the blanket and allow to soak 15 to 20 minutes, turning over once or twice by hand.
3. Spin off wash water and run in rinse water of same temperature. Submerge blanket and soak five minutes. Remove water and add fresh water for another rinse, turning blanket once as second rinse comes in.
4. After extracting second rinse water, the blanket should be stretched to original size and shape by two people pulling from opposite ends.
5. Allow the blanket to dry until slightly damp, then stretch again and dry.
6. Brush blanket on both sides with a stiff nylon brush or a pet brush to lift nap to original softness.
7. Press bindings of blanket.

This method is suitable for non-automatic washers or for agitator or pulsator-type automatics if they have flexible control dials which can be operated by hand. It may also be used with tumble type washers if the door can be opened after the machine is filled.

Kitchen Cheer

Two years ago the Chambers Corporation, Shelbyville, Indiana pioneered in ranges in pastel colors. A tabulation of their sales of the past year showed that more than 31 per cent of the ranges sold were in the attractive new shades. Yellow was the most popular color. With this trend toward colored kitchen appliances also comes the problem of color tastes changing from time to time. This manufacturer has provided for fashion's fickleness. When the homemaker decides to change her kitchen color scheme, she can also change the color of her range by replacing the colored metal outside panels with others of a different hue.

Improved Garbage Disposer

Although the operation is basically the same as in earlier models, the new General Electric garbage disposer has been completely redesigned. Its manufacturers say this disposer is 15 pounds lighter and somewhat smaller. However, it has the same food waste capacity as previous models, is 50 per cent quieter and incorporates a new shredding mechanism with an extra cutting action.

New Type of Electric Clothes Dryer

The new Hotpoint electric clothes dryer throws no heat, lint or moisture into the room, say its manufacturers. Because of a new principle of operation, no air is taken into the unit after the door is closed. The air in the sealed appliance is heated as it passes over the heating units and is drawn into the tumbler. The action of the clothes forces the air out at the bottom into a fine cold water spray which condenses and flushes out the moisture and lint taken from the clothes. The same air then passes over the heating units and repeats the cycle. The dryer holds approximately the same load as an automatic washer. There are two operation controls: one for heat and the other for time.

The new Dixie-Fryer of the National Pressure Cooker Company holds up to three pounds of quartered chicken

Product Briefs

- The Kwikee-Fold basket's uniqueness is that it is collapsible, folding flat to ½ inch thickness for easy storage. Its frame is of rust-resistant Unichrome metal and it has a plastic liner. The basket measures 22 by 14 by 12 inches and weighs only 4 pounds. It has many uses such as for a laundry basket, baby carrier, picnic basket and pick-up for grass and leaves. General Enterprises, Inc., Chicago is the manufacturer.
- Vinylite plastic table mats with new texture interest are being manufactured by the Hedwin Corp., Baltimore. They have an embossed, three-dimensional hemp pattern which is attractive. The mats are approximately 12 by 18 inches and are available in nine opaque colors. A damp sponge or rinsing under the faucet keeps them clean. There are also matching coasters in a geometric leaf design.
- *Sta-Trim* is a self-adhesive shelf paper designed to stay put on shelves. On the back of the paper are two strips of adhesive covered with a protective tape. To use, the tape is peeled off and the paper pressed into position on the shelf. The paper is of heavy weight and plastic coated for washability. It is available in 12 and 30 foot rolls in red, green, blue, yellow and white. The manufacturer is Stratocote, Inc., Los Angeles.
- According to Nesco, Inc., Milwaukee, they have made the first major change in pail design in 75 years—the traditional round pail has been changed to an oval shape. Although designed to accommodate, through its greater width, the new wide sponge mops, it has shown other advantages. The oval bottom fits snugly without overhang on stair treads and it pours and carries more easily.

storing frozen foods

(Continued from page 27)

erator should be rapidly defrosted. This can be done by removing all ice trays and frozen foods from freezing compartment, turning the unit off, and placing trays of hot water in the frozen food compartment. The frozen foods should be stacked together in the refrigerator during defrosting; since this operation, if carried out as described above, takes only a few minutes, the frozen foods will not be damaged.

In two-temperature refrigerators, where the freezing compartment is insulated from the fresh food compartment, frequent defrosting is not necessary.

Freezer temperatures above 15°F. are unsatisfactory for the storage of ice cream. Even at 15°F. ice cream gets too soft and loses its overrun quickly. Ice cream, with the exception of strawberry, which requires 0°F. or lower, can be stored for a month or six weeks at 10°F. and for three or four months at 0°F., without great loss of quality. However, minus 10° or lower is usually considered necessary for long time storage.

"Two-Temperature" Refrigerators

A number of companies are offering "two-temperature" refrigerators especially for frozen food storage. Some of these maintain 0°F., but others hold only plus 10°F. in the frozen food compartment. If none of the frozen foods are to be held longer than 3 or 4 months at the most, the higher temperatures will be satisfactory. If on the other hand some foods may be held for somewhat longer periods, a 0°F. storage compartment should be demanded.

Some refrigerator manufacturers recommend the freezing of food in frozen food compartments. The housewife must remember that the actual refrigeration capacity of domestic refrigerators is relatively small, and consequently, it is poor policy to freeze more than three or four pounds of food at a time in any compartment maintained at plus 10° or 15°F. It is poor policy to freeze any foods at temperatures higher than plus 15°F. At 20°F. the rate of freezing is so slow that extremely large ice crystals will be formed and consequently the quality of the frozen foods obtained is likely to be low. Placing warm foods in a 20°F. compartment will raise its temperature still higher and thus damage other frozen foods which may be stored therein.

To be more specific, if not more than five pounds of foods are frozen at one time in a frozen food compartment at 0°F., or lower, of an electric refrigerator, the quality of the frozen food obtained will be excellent, provided the fresh food was of equally high quality and it has been properly prepared and packaged for freezing. A similar statement can be made about the freezing of food in a compartment at 10°F., provided only three or four pounds are frozen at a time. However, if the temperature of the compartment is as high as 10°F. it is essential that the packages of food to be frozen be placed directly on the metallic freezing surface and not on another package.

If meats or fish are frozen at temperatures higher than 10°, the rate of freezing is likely to be so slow that the crystals formed are very large. Then when the product is thawed much juice (drip) leaks out and the product is likely to be lacking in flavor and nutritive values. As pointed out above, the vitamin C content of fruits and vegetables is rapidly lost from products frozen and stored at 15°F. or higher.

Refreezing Thawed Foods

All distributors of frozen foods warn against refreezing accidentally thawed

(Concluded on page 44)

TEACHING'S EASIER with this Revised, Up-to-Date Unit on

HOW TO BUY,
HOW TO MAKE,
HOW TO PLAN

modern meal patterns

FOR TWO...
FOR FOUR...
AND EVEN MORE!

A QUICK MEAL FOR TWO OR TWENTY. Recipes, menus, ideas and easy "ways how to" serve small or large groups without waste or fuss, are included in the handy four-page booklet "Modern Meal Patterns Using Canned Foods."

ARE CANNED FOODS NUTRITIOUS? You'll find the reassuring answers in the eight-page student leaflet "Canned Foods in Modern Meals," plus information on labels, buying, using, and storing canned foods. Another pamphlet, "Canned Food Tables," gives the nutritive values of 42 canned foods in easy-to-use chart form.

IS YOUR FOOD BUDGET SMALL? A page of suggestions for home practice and classroom projects. A copy of the book "Tempting Recipes Using Canned Foods," is supplied for each classroom.

USE COUPON SERVICE SECTION
to request 4-piece teaching unit on canned foods

HOME ECONOMICS DIVISION
NATIONAL CANNERS ASSOCIATION
1133—20th STREET, N. W.
WASHINGTON 6, D. C.

what's going on in textiles

BY DOROTHY S. DAY

NEW treatments are making household fabrics better in many ways. Safety, beauty, comfort and simplicity of care have all been considered by manufacturers working on new textile ideas to make the American home more livable. Here are a few of the latest developments.

In the Kitchen

If you have not caught up with the *Carosel* dish towels which are made by the Textile Division of the United States Rubber Company, you will be glad to know that this product really is good for wiping china, silver and glassware. The fabric is a mixture of 80 per cent cotton and 20 per cent asbestos which contributes to the absorbency and polishing properties of the towel. *Carosels* are made in five colors; red, green, yellow, blue and rose in rather strong shades and add a striking note to kitchens. Three towels, either in assorted colors, or all one color are packaged in a gift box.

Another product made by the Textile Division of the United States Rubber Company, is *Asbeston*, a lightweight fire-resistant asbestos cloth now made into ironing board covers. As you have guessed, it contains asbestos. Made of a special light weight asbestos yarn, the fabric has outstanding fire-resistant properties and relatively good resistance to wear. It may be washed by hand, and bleached if necessary to remove stubborn stains.

On the Floor

Far and away the most exciting news in floor coverings is the use of synthetic fibers in the production of carpeting. These new rugs and carpets made of rayon are not to be confused with the rayon floor coverings brought out during the war which were usually made of inferior rayon waste.

The uncertainty of raw carpet wool supplies and the sharp rise in wool prices indicates that American carpet producers will manufacture all rayon or rayon and wool mixture floor coverings in the future. Experimentation over a period of years has developed a sturdy crimped rayon staple which when woven duplicates the appearance of a wool carpet.

Added attractions are the fact that rayon carpeting can be produced at a lower price; rayon yarns take dye well in clear color tones; fibers can be produced with either a dull or shiny finish and can be made thick or thin for interesting textured surfaces.

The new carpets have a pleasing feel, possess a high degree of resiliency, are durable and easily cleaned and are completely moth-resistant.

On the Furniture

The characteristics of nylon that make it so dear to the hearts of women for wearing apparel also contribute to the success of upholstery fabrics woven of nylon yarns. Nylon's abrasion-resistance means long wear. Upkeep is also reduced because nylon does not soil quickly. Nylon's lack of attraction for moths and other insects that commonly attack upholstery is another advantage. The fiber does not burn readily and nylon fabrics with proper finishes and dyes will merely melt when exposed to flame. Besides the four advantages just mentioned, the fabric really has textural beauty.

Easy Pleats

Many a clever home seamstress gets as far as lining a pair of draperies only to discover that making box or pinch pleats is not as easy as it looks. New zinc-plated steel pins called Pleatmaster Drapery Pleaters will create either box or pinch pleats in any drapery with a 3½ inch foldover at the top. The pleaters are boxed in sets of ten (enough for one pair of draperies) with four brass pin hooks for curtain ends and two patterns with instructions.

At the Windows

Fabrics of fiber glass are now being made in a variety of types which are a far cry from the early plain, white, rather heavy, stiff material. One may select sheer or opaque fabrics, in beautiful plain colors or printed in traditional or modern designs. These curtains are washable, and can be returned to the window frames while still damp. You know, of course, that the glass fabrics are fireproof. Recently, I visited a modern school homemaking department and saw fiber glass draperies in the kitchen laboratories, homemaking apartment, and nursery school.

The Nylon Division of E. I. Du Pont de Nemours Company has recently issued a small booklet called *News About Nylon—The Story of Nylon in Curtains.* While it is primarily written for stores so that the sales personnel will "know nylon when they show nylon," any one interested in learning more about the proclivities of nylon should be interested. We noted, particularly, that an explanation was given as to why some nylon is soft and some is crisp. If multifilament nylon yarns are used the fabric is likely to be soft. When curtains are made of monofilament yarn, their crispness will not wash out. Stiffening finishes are added to give sales appeal to the fabrics, but what happens when the curtains are washed depends on the type of yarn used.

Rayon Carpet Care

As addenda to the paragraph on the new rayon carpeting, a few hints on the best ways to care for it would not be amiss. It is said that in general rayon carpets have satisfactory soil resistance and that they are likely to shed less than wool ones when they are new. Recommendations are to carpet-sweep daily, vacuum clean once a week, and give a professional dry cleaning every year or so. They should not be wet shampooed at home. The dampness may injure the fibers and rug backing. These suggestions sound like those recommended for care of wool rugs. Rugs made of all-rayon yarns are safe from moth damage, but rayon-wool rugs should be stored during the summer after being treated with a moth preventive.

Student Designs Printed

Stephens College students in fashion design now have extra incentive to produce high quality work. Nine designs,

made by seven Stephens girls last year, are being nationally distributed by the Butterick Company. They are listed as Susie Stephens originals in the Butterick pattern book. The arrangement between the college and the pattern company is being continued this year. Students have voted to allot a portion of their royalties to a scholarship fund and to the improvement of the facilities of the department.

For Your Pleasure

The Scalamandre Museum of Textiles, at 20 West 55th Street in New York, will continue its present exhibition of "Chinese Silks of the Manchu Dynasty and Their Influence Upon the Occidentals" until the end of January 1951. If you are in or near New York and love beautiful fabrics you will be rewarded for the time you spend there. Lectures to schools, clubs and visiting groups are given upon request.

●

being creative

(Continued from page 20)

mats. In each case the colors, though subtle and calm, have been combined with various textured yarns—some similar in color and size, others excitingly different. Because of the fine restraint and feeling for subtlety which each weaver expressed, the place mats are not only handsome examples of weaving but, when used with simple, well-designed appointments, make beautiful table settings.

There are advantages which may benefit the home economics student and society as well when this creative approach is used. The individual has an opportunity to experiment with the materials and to express her own ideas about what is right for her. She also gains an appreciation for the materials which she has handled and learns to see possibilities inherent in many other seldom used fibers. She not only learns weaving techniques, but eventually may become a more discriminating consumer, better qualified to judge excellent design from the commonplace.

In the long run, society as a whole may come to recognize and respect the ideas of these young homemakers and consumers. Through their insistent demands upon the manufacturer and craftsman, more well designed fabrics may one day be found on the market. At least, the number of good designs now offered by the better home furnishing manufacturers indicates progress in this direction.

It is to this end that our efforts at Penn State are directed. Society benefits from the creative approach of the craftsman. His creativeness and love of experimentation have contributed so much to the art of better living through the years. The world would never have known the fascinating fabrics with their nubby textures, loops and fringes, their novel yarns of cotton, wool, mineral or synthetic, and their subtle color and texture combinations had it not been for the creative weavers.

●

nutrition high lights

(Continued from page 34)

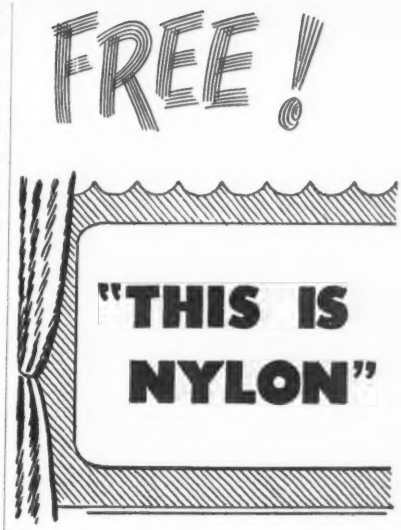
vation must all make their contribution to the food program in Puerto Rico before the diet can be made adequate for the two-thirds who are now living on a sadly deficient food intake.

At the present time, increased milk production and the use of low-cost dried skim milk is receiving governmental emphasis. Enriched flour and bread should be required by proper legislation. Rice, which is eaten and liked so well by Puerto Ricans, should be restored to its natural vitamin and iron content either by enrichment or some other process which will not change texture, color and flavor. Increased emphasis on the use of green and yellow vegetables will help to correct the vitamin A deficiency and add a pleasing variety to the diet. More milk, even dried skim milk, will add riboflavin and bring more of the much-needed animal protein into the diet. More and better protein could also be available if families could be encouraged to raise rabbits for food, which can be done at a lower cost than raising chickens and pigs.

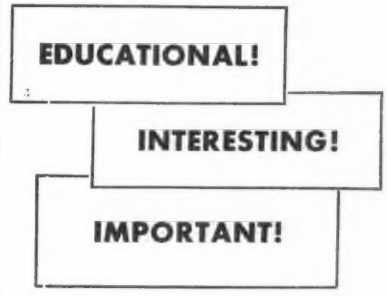
The protein of the chick peas and soy beans is well known to be superior to the popular kidney bean which plays such a big part in the diet of the poor of this country. Agricultural agents from the extension service are demonstrating the best methods of growing home orchards and gardens so as to increase the fruit and vegetable supply and add variety to the diet.

These are examples only of the many ways in which the food problems of the Puerto Ricans, having been discovered and analyzed, are now finding simple and inexpensive solutions.

Of course, along with improved food techniques must go an understanding of the reasons why and the relationship of food to health. There is much need for nutrition education, so that all foods which are available may be used to best advantage.



First film to be released on this versatile fiber



"This is Nylon" is a full-color, sound motion picture, produced and directed in Hollywood. Through the medium of a warm, appealing story of a typical American family, your classes will see the unique chemical process behind nylon. Hosiery, outdoor furniture and children's apparel are used to demonstrate nylon's versatile properties of dimensional stability, resistance to abrasion and moisture, quick drying and easy handling.

Sports and industrial uses are also shown. The picture concludes with an unusual fashion show featuring nylon fashions for children and adults under all weather conditions and in all seasons. A noted Hollywood stylist designed many of the garments.

Don't miss this film! Every important fact about nylon is included. Running time, 29 minutes.

This film is available in the 16mm size. The only charge for the loan of the films is return transportation costs.

For further information, see coupon in Service Section. Nylon Division, Dept P, Room 6508, E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

why have a dull knife?

(Continued from page 24)

point of the blade steady on the stone with one hand.

10. Turn the knife over to begin the upward stroke as shown in Chart No. 2. Remember the cutting edge of the blade always leads.
11. Begin with the blade near the handle on the stone parallel to the end as shown on the chart.
12. Tip the knife slightly to a 20° angle.
13. Push the knife up the stone ending at the point of the knife.
14. Test knife on the potato to determine if it is any sharper than it was before.
15. Turn the oil stone over with the coarse side up if the blade is very dull.
16. Continue with down and up strokes with enough pressure to feel that you are just "shaving" the surface off the stone.
17. Test knife after every few strokes to determine when sharp enough.
18. Clean the stone with oil or with oil diluted with kerosene.

C. Next try a slicing knife.

To sharpen a slicing knife, follow the same procedure, but test the knife by cutting, not paring, the potato. To sharpen, place knife as shown in Chart No. 3 and proceed as before to step 9. Then move the knife diagonally down the stone gradually raising the handle by lifting the elbow. Continue to raise the handle as the point of the blade progresses down the stone. (The raised handle makes it possible to sharpen the curve. The point of the blade should be on the stone when it gets to the bottom of the stone.) Turn the knife over and proceed as in Chart No. 4. Then follow steps 11 through 17 as for paring knife.

D. Clean the stone thoroughly with kerosene, or ammonia and wipe off. Add a few drops of clean fresh oil to stone and replace covered in its box. Place the box in a metal container to avoid fire hazards. Special cleaning may be needed occasionally; instructions on the box should be followed.

E. The steps in using the sharpening steel are:

1. Hold the sharpening steel in the left hand with the point of the blade upward.
2. Start with the heel of the knife (end of the cutting edge near the handle) at the point of the steel.
3. Hold the blade against the steel with the back of the blade slightly tilted to give about a 20° angle to the cutting level.
4. Draw the cutting edge of the blade diagonally down the steel; cover the entire length of the edge from the heel to the point with each stroke. Little pressure is needed. (The left hand should be protected by a guard on the handle of the steel.)
5. Use the same method drawing the blade down across the reverse side of the steel. This will put the edge on the other side of the knife blade.

The purpose of the steel is to add the last touch of keenness to the knife blade.

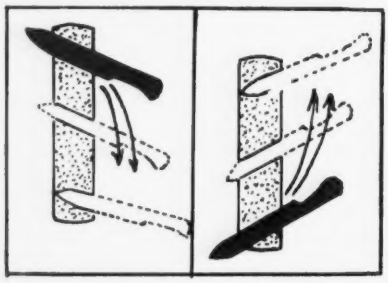


Chart III **Chart IV**

Right-handed sharpening of slicing knife showing how to stroke knife The authors constructed these charts for bulletin board use from 9 by 12 cards with sandpaper representing the oil stone and silvery paper the knife. Dotted lines show direction of knife

Cutlery Cues

A workman who buys a good piece of equipment takes excellent care of it. His tools are important to him. The housewife should extend the same care to her kitchen knives.

Proper storage

1. Do not throw knives in a drawer with other utensils. In knocking together, the edges are ruined.

2. Devise a method to keep blades from rubbing against each other. It may be a board slotted to fit knives and glued to the bottom of the drawer. Magnetic bars for wall or drawer are available and are becoming more reasonably priced.

Proper cleaning and sharpening

1. Do not allow to soak in hot water. Wash and wipe dry. Dry from back of blade to avoid cutting dish towel.

2. If the blade is discolored (as with plain high carbon) lay flat on a board and scour it with a moistened cork and scouring powder. This will not remove all of the stains but will improve the appearance.

3. Obtain suitable sharpening tools for knives and use them correctly. A sharpening steel, and combination oil stone 7 x 2 x 1 are excellent for high carbon steel knives. Metal discs are suitable for low carbon knives.

Proper use

1. Use each knife only for its intended purposes.

2. Do not use a knife to chop food in a metal container. This dulls the knife and mars the utensil.

3. Use a wooden cutting board in slicing or cutting.

4. Never use knives for any purpose other than cutting or slicing food.

5. Knives may be harmed by sudden change of temperature. Do not heat the blade in a flame. This destroys the temper of the steel, and the blade cannot be kept sharp.

6. Do not leave knives in hot water.

Bibliography

What Makes a Good Knife

1. Agan, Tessie, *The House,* J. B. Lippincott, Chicago, Illinois, 1948.
2. Casselman, E. J. *The Selection and Care of Kitchen Cutlery,* The Kitchen Reporter, Kelvinator Kitchen, Detroit, Michigan, May 1948.
3. Hankinson, Mary, *Your Kitchen Knives,* Country Gentleman, Philadelphia, Penn., June 1949.
4. Peet, Louise J., and Thye, Lenore S., *Household Equipment,* John Wiley, New York, 3rd Edition 1949.
5. Remhardt, Marguerite, Kitchen Utensils, *Better Buymanship Series,* No. 7, Household Finance Corporation, Chicago, Illinois, 1947.
6. *Robeson Shuredge Cutlery Sales Facts,* Robeson Cutlery Co., Perry, New York.
7. *The Story of Cutlery,* Associated Cutlery Industries of America, PRACTICAL HOME ECONOMICS, September 1950 listing section, Coupon No. 76.
8. Wiesandanger, Delpha E., *Selection and Uses of Kitchen Knives,* The Kitchen Reporter, Kelvinator Kitchen, Detroit, Michigan, May 1948.

Why Have a Dull Knife?

1. *How to Sharpen,* Behr-Manning Division of Norton Co., Troy, New York, 1950.
2. Johnson, W. H. and Newkirk, L. V., *Home Mechanics,* The MacMillan Company, New York, 1947.
3. McCordie, Margaret P. and Bruhn H. D. *Knives and Scissors, Sharpening and Care,* Circular 369, Extension Service. College of Agriculture, University of Wisconsin, Madison, Wis., 1946.
4. *Sharpening Knives,* Mimeo. Bul. No. 223 Department of Agricultural Engineering 1946—College of Agriculture, Ithaca, New York.

(Continued from page 26)

and firm, and have a light grayish-pink color. There is little marbling in the lean of good veal.

3. Pork is sold both fresh (as pork) and cured (as ham and bacon.) Fresh pork should be light grayish-pink in color, have white firm fat covering most of the exterior of the carcass. The proportion of meat to fat should be high. Some hams are made more tender by a special process. Others are prepared for table use by cooking thoroughly at the time of smoking.

4. Lamb should be firm, fine grained and dull pink in color. The lean of mutton is dull red. The bone is a good indication of whether a piece of meat is lamb or mutton. Lamb has soft red bones, mutton hard white ones. When the forefeet of lambs are broken off, four well-defined ridges appear on the bone. Mutton cannot be broken at this joint, so no ridges will appear.

5. Variety meats in general should not be purchased far ahead of using since they are more perishable than other meat. Tongue may be bought fresh, pickled, corned or smoked.

6. Sausage is of four types—fresh, smoked, dried or of the cooked specialty variety. Fresh pork sausage should be thoroughly cooked before serving. Frankfurters are the most popular type of smoked sausage. Salami is typical of the dry sausages. Examples of cooked specialties are deviled ham and liver sausage.

C. Storage

1. Fresh meat should be kept in the refrigerator. Before storage, the original wrappers should be removed. The meat should then be wiped with a clean damp cloth, wrapped lightly and stored in the coldest part of the refrigerator.

2. Cooked meats should be kept in the refrigerator.

3. Frozen meat should be stored at zero degrees F. or below if it is to be kept for any length of time. If it is to be used soon, it can be defrosted on the refrigerator shelf and cooked like fresh meat.

V. PREPARATION

A. Principles of Meat Cookery

1. Cooking causes changes in the color, texture, flavor and nutritive value of meat.

2. Moist heat softens the collagen of connective tissues, making meat more tender. Dry heat is suitable only for the tender cuts.

3. Heat shrinks muscle fibers, causing them to squeeze out juices. It also results in loss of fat through melting. To keep these losses at a minimum, low temperatures are desirable.

4. A meat thermometer assures that the meat is cooked to a desirable stage of doneness.

B. Methods of Cooking Meat

1. Roasting is a dry heat method suitable for tender cuts of beef, veal, pork or lamb. Meat is cooked in a slow oven. No water is used.

2. Broiling is also a dry heat method. Tender chops, steaks, slices and patties are cooked in the broiler. Pork and veal are seldom prepared this way.

3. Panbroiling is suitable for both cuts which can be broiled and for those which are too thin for broiling. No water or fat is added.

4. Panfrying is the same as panbroiling except that fat is added. Sometimes, the meat is coated. Best results are obtained by using tender cuts.

5. Deep fat frying is cooking in a large amount of fat. A deep kettle and frying basket are used. The meat is often coated with flour, batter, breadcrumbs or cornmeal.

6. Braising is a moist heat method and is used for less tender meat. In braising, the meat is browned, seasoned, covered and cooked in a small amount of water either in the oven or on top of the stove.

7. Simmering is similar to braising except that the meat is covered with water. Large cuts of less tender meat and small pieces for stew can be prepared by simmering. When stew is made, vegetables can be added to the meat at times which will permit all ingredients to be done at the same time.

8. Meat loaves, meat pies, soups, souffles and casserole dishes are a few of the recipe combinations in which meat is a main ingredient.

VI. SERVICE

1. In this country, it is customary to plan meals around the meat, which is nearly always served as the *piece de resistance* of the main course. Meat also appears in soups, appetizers and sandwiches.

2. Carving is an important skill in connection with meat service. A sharp knife should be used. Meat should be cut across the grain as a general rule. A good carver knows the best way to carve a number of types of meat.

For teaching aids on meat, see PRACTICAL HOME ECONOMICS, *September 1950 listing section, coupons 4, 5, 20 and 33.*

Maltex Cereal Points the Way to a GOOD BREAKFAST

Do the girls in your classes need urging to eat a hot cereal? Try using Maltex Cereal for your Breakfast Lessons. The rich, nut-like flavor of Maltex—a result of combining Toasted Wheat and Malted Barley—is sure to appeal to them, it tastes so good. And you'll find Maltex Cookies make a perfect classroom project — quick and easy to make, and economical too. In the Maltex Test Kitchen, 6 dozen crisp, delicious cookies are made in just 30 minutes, at a cost of 32 cents. Do try this recipe:

Maltex Cookies

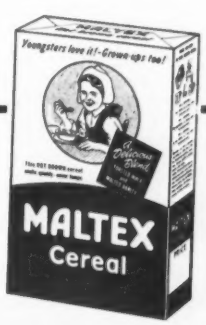
½ cup shortening
1 egg
½ cup molasses
½ cup Maltex Cereal, uncooked
½ cup sugar
1½ cups flour
1 teaspoon soda
½ teaspoon salt
2 level teaspoons ginger

Cream shortening, add beaten egg, molasses, Maltex Cereal and sugar. Beat well and add flour, soda, salt and ginger sifted together. Mix thoroughly and drop from a teaspoon on greased cookie sheets. Press round and thin, using the bottom of a tumbler, wrapped in a damp cloth. Bake in oven 350° for 8 to 10 minutes. Makes 6 dozen three inch cookies.

Free Teaching Aids to Help You In Promoting a 100% Breakfast

Write today for new catalog of 14 FREE teaching aids. Posters, charts, booklets with strong child appeal . . . a wonderful help in building good eating habits. Offer limited to localities north of Washington, D. C. and east of Chicago. Send a post card today to:

HOME ECONOMICS DEPT.
MALTEX COMPANY
BURLINGTON, VERMONT



Nine Bulletin Board Exhibits—$17.50
Individual Exhibits—$2.50

A Beautiful Exhibit for Every Month in the Year!

A Pretty Bulletin Board is Good Publicity

Tell your Home Ec story on the Bulletin Board. Here are NINE exhibits ready to assemble in a JIFFY! May be used, also, as POSTERS. NINE Units are included: Sewing, Grooming, Color in Costume, etiquette, Wardrobe Selection, Flower Arrangement. A Fashion Show. Unusual Foods. Party.

Each Exhibit Includes the Following

A POSTER BOARD, 22x28, in color, to use on the Bulletin Board, or as a large Poster Exhibit.

LARGE beautiful colored letters, with adhesive back ready to arrange on your bulletin board. No cutting.

AND 2 ALPHABET PATTERNS—1 Large—1 Small.

A SKETCH, 8½x11, showing HOW the exhibit is to be assembled on the Bulletin Board.

ALL MATERIALS needed and instructions with each.

Here Are the Nine Exhibits

I: NIMBLE THIMBLE: A lovely girl sits sewing in lower corner, wearing waist and skirt of REAL fabric. TWELVE items from a REAL Sewing Kit are displayed.

II: A GIRL MUST CHOOSE: Three large heads in a row: BLOND, REDHEAD, BRUNETTE, with YARN hair, wear a "halo" of cloth color swatches becoming to each.

III: A FASHION CLOTHESLINE: A ribbon clothesline is hung across the poster, with silhouettes of paper doll garments hung with REAL clothespins.

IV: YOUR HANDS TELL: A beautifully manicured hand with jeweled cuff extends across poster, with REAL Manicuring Supplies circling the finger-tips.

V: FLOWER ARRANGEMENTS: A 3-dimensional vase containing a beautiful arrangement of artificial flowers announces this Unit of Study effectively.

VI: DATING FOR DANCING: Two couples, with right and wrong fabric clothes are dancing; one wrong. "Bouncing Betty," the other right, "Lovely Letty."

VII: UNUSUAL FOODS: TWENTY rare fruits and vegetables in beautiful color, ready to arrange on your bulletin board. Names on each!

VIII: A VALENTINE PARTY: A lovely girl wearing a lace gown, of lace doilies, holds out a large white heart-shaped invitation to a tea-dance-party.

IX: MAY DAY FASHION PARADE: A REAL May Pole, with satin streamers leading to miniature models, parading across the page in pastel net dresses.

GILLUM BOOK COMPANY

400-408 Woodland Kansas City 6, Missouri

storing frozen foods

(Concluded on page 39)

foods. As a matter of fact, there is no danger in refreezing foods that have not been allowed to warm above 40°F. in temperature. The danger is in thawing foods and allowing them to putrefy and then refreezing and consuming putrid or partially putrid foods at a later date. Putrid vegetables are likely to contain botulinus toxin which is very deadly. There is a possibility that putrid fish, shellfish, meats and poultry may also be poisonous. At temperatures below 40°F., these foods require several days to putrefy. At higher temperatures, e.g. 80°F., frozen vegetables may become putrid in 18 hours.

In general, then, as long as thawed foods are not allowed to stand around more than two or three hours, they may be refrozen without any possible danger. Further, their quality should be satisfactory, although not as good as those which had never been permitted to thaw.

●

budgeting for better living

(Continued from page 14)

may be listed right up in front with the wishes.

Future expenses fall into two groups —the "fixed" future and the "flexible" future expenses. There are occasional needs for large amounts of money and these are usually too large to be taken from one paycheck, so must be anticipated. You will find families responding eagerly to a suggestion for grouping items this way and setting up a regular reserve out of each paycheck. The "fixed" future expenses are both regular in amount and the time they fall due. The future "flexible" ones are not regular in amount and can be modified to fit in with other needs and requirements. For example, the Christmas Fund is a future flexible expense. It must be included, but the amount can be adjusted to meet family or individual situations.

For most families, everyday living costs are fairly regular. Except for the leaks, where money dribbles away, these items are not difficult to estimate.

Classifying expenses in this way marks a definite line between actual commitments, regular needs, and possible places for economy. Families want to improve their management of money. But many of them say that every time they start a budget they become too involved with details and get discouraged.

Make sure that every suggestion you give for building a budget or for checking spending against a plan is really helpful. Records are not important except as a control and a measure of achievement.

Evaluate Progress

Achievement is a powerful incentive toward continuing a budget, so don't fail to provide a measuring stick to show progress. Help students to recognize improvements in their planning and to report to themselves on what they accomplish. The results of good money management are not measured altogether in things that the family has been able to purchase nor even in debts scratched off the record. Peace of mind, better understanding and cooperation between family members, the disappearance of bitterness and worry about money, a willingness to share in sacrifices as well as pleasures—all of these are indications of better living through budgeting.

HOME ECONOMICS DIRECTOR: to head educational department of national company in sewing field. Must have thorough knowledge of clothing construction and some experience with budgets and promotion. Teaching experience desirable. College graduate, home economics degree. Salary open. Write Box #124, Practical Home Economics, 468 Fourth Avenue, New York, N. Y.

FASHION ACADEMY
THE SCHOOL OF FAMOUS GRADUATES
FASHION DESIGN
STYLING • BUYING
MERCHANDISING

Direction of Emil Alvin Hartman, Foremost Fashion Authority. Resident Class request Book 22. Home Study Courses request Book 22H.
812 Fifth Ave. (at 62nd St.) New York 21, N.Y.

How Personalities Grow... By Helen Shacter.

This new book deals with ways to understand ourselves and others; how people are alike and how they are different; how to meet social and emotional needs; how people act when social and emotional needs are not met; and why individuals behave as they do. It discusses the many types of activity that relieve tensions. The social implications of sexual needs are frankly discussed. Write today for approval copy. $3. Clip this.

"As Others Like You"

By Stephenson-Millett. One of the finest books on social etiquette. Easy-reading style. $1.50 cloth. Social Tests A & B to be used as pre-test and achievement test. Each form 10c.

and
McKNIGHT & McKNIGHT
PUBLISHING COMPANY
Dept. 22, Market and Center Sts., Bloomington, Ill.

Teaching Aids

IT ISN'T TRUE !

There's an old saying that nothing good is free. But any teacher who has used the Teaching Aids section of *Practical Home Economics* knows this old saw doesn't always hold true.

ON THESE PAGES YOU WILL FIND *FREE OR AT A SMALL COST*:

Background information to help you teach more interesting lessons

Colorful charts and photographs for your bulletin board

Lesson plans, examinations, literature especially prepared for home economics teachers

Films and filmstrips to supplement your teaching

Suggestions for special projects

Books for the homemaking department or your own professional collection

SEE THE NEXT PAGE FOR DIRECTIONS AND FOR MORE COUPONS.

SPECIAL NOTICE. Coupons from the September 1950 listing section can still be honored. Send yours in with your January coupons.

TURN THE PAGE FOR MORE ▸

FACTS ABOUT CANNED FOODS

American Can Company, Home Economics Section, Dept. PH-1-51
100 Park Avenue, New York 17, New York

Please send me FREE copies of:
..... High School Manual on Commercially Canned Foods
..... The Canned Food Handbook
..... Choice Recipes and Menus using Canned Foods
..... Kitchen Tested Recipes from Canned Foods
..... Savory Tested Recipes from Canned Foods
..... Coffee Facts for Home Economists
..... Large-Quantity School Lunch Recipe Cards

Name ..... School .....
Street .....
City .....Zone .....State .....

23 Jan. 51 PHE

DOLE MAP OF HAWAII

Patricia Collier, DOLE Home Economist,
Hawaiian Pineapple Co., Ltd., Room 902,
215 Market St., San Francisco 6, Calif.

Please send me .... copies of

THE DOLE MAP OF THE HAWAIIAN ISLANDS.

Enclosed is 25c for each copy.

Name .....Title .....
School .....
Street .....
City .....Zone .....State .....

25 Jan. 51 PHE

Educational Nylon Film

E. I. du Pont de Nemours & Co. (Inc.), Nylon Division
Dept. W, Room 6508
Wilmington 98, Delaware

..... Please make a reservation for "This Is Nylon" sound, full color motion picture, telling exciting story of nylon. (16mm.) Allow 30 days before earliest request date.

Our choice of dates is
..... 1st choice
..... 2nd choice

Name Title
School Jr. H.S. H.S. College Others
Address
City State
No. of H.E. Students Taught—Girls ..... Boys ..... Grade(s) .....

32 Jan. 51 PHE

AUTHENTIC INFANT NUTRITION TEACHING HELPS

Gerber Products Company
Department 621-1, Fremont, Michigan

Kindly send me without charge:
(a) My copy of the Teacher's Manual by Edna Mae McIntosh, M.S., to assist me in my course on Infant Nutrition.
(b) ..... copies of the simplified Student's Leaflets designed to supplement classroom discussions.

Name .....
Title .....
Institution ..... Address .....
City .....State .....

5 Jan. 51 PHE

D. C. HEATH AND COMPANY

Please send me free folders on your new Home Economics texts, and Heath's free Bulletin for Economics Teachers. (Write to office nearest your school: 180 Varick St., NEW YORK 14. 1815 Prairie Ave., CHICAGO 16. 50 Pryor St., N. E., ATLANTA 3. 182 Second St., SAN FRANCISCO 5. 713 Browder St., DALLAS 1.)

NAME .....
SCHOOL .....
POSITION .....
ADDRESS .....

33 Jan. 51 PHE

FOLLOW THESE THREE SIMPLE STEPS TO GET YOUR TEACHING AIDS.

ONE. **Read the coupons carefully. Choose the material you can use in your classes. Fill in each coupon for the items you wish to receive. Blank coupons will not be honored.**

TWO. **Set aside coupons which require payment. Figure out the total amount needed. Fill in your remittance, making it payable to *Practical Home Economics*. Do not send requisitions. They will not be honored.**

THREE. **Check to see that all coupons are filled in completely and that you have not overlooked items which require payment. Put coupons and remittance into an envelop and mail to:**

PRACTICAL HOME ECONOMICS
468 FOURTH AVENUE
NEW YORK 16, NEW YORK

Consumer Education Department
JOHNSON'S WAX
Racine, Wisconsin

FREE Illustrated Johnson's Wax Teaching Aids . .

Please send me

☐ Johnson's Wax Catalog of Free Teaching Aids

☐ How to Throw a Waxing Bee (student circular—state quantity)_____

☐ The Right Way to Care for Asphalt and Rubber Tile (stud circular—state quantity)_____

Name .....
Title or Department .....
School or Organization .....
Address .....
City ..... *Zone*..... *State*.....

6 Jan. 51 PH

Please send: New Catalog of 14 Teaching Aids—Posters, Charts, Recipe F Diet Records, etc.—from which I may order, in the quantity needed, item ful to me. (This offer good only east of Chicago and north of Wa ton, D. C.)

Name .....Title .....
School .....Jr. H. S. .....H. S. .....College ....Other
Address .....
City .....State .....
No. of H. E. Students Taught—Girls .... Boys .... Grade(s) ....

Write to: Home Economics Dept., Maltex Company, Burlington, W

34 Jan. 51

Clip This To Order The Books Li

Please send: ( ) "How Personalities Grow," $3.00. ( ) "As Others Like You," ( ) Tests A & B, 10c ea.

School .....Jr. H. S. ..... H. S.....
College ..... Others.....
Name ..... Title.....
Address .....
City ..... State .....
No. of H. E. Students Taught— Girls ..... Boys..... Grade(s)...

McKNIGHT and McKNIGHT PUBLISHING COMPANY

Dept. 22, Market & Cente Bloomington, Illinois

35 Jan. 51

National Biscuit Company
449 West Fourteenth Street, New York 14, New York

———Please send me without charge a copy of your four-color wall *Begin With Breakfast* and also a sample of the accompanying student sheet which is available in quantities for classroom use.

Name ..... School .....
Address .....
City .....Zone .....State .....

9 Jan. 51

For your

homemaking classes

Harris and Kauffman:
YOUNG FOLKS AT HOME

Basal material for beginners—both boys and girls—in all areas of a well-rounded homemaking program.

Todd: CLOTHES FOR GIRLS, REVISED

Selection, care, and construction of clothing organized in terms of related life experiences rather than in terms of subject matter topics.

Harris and Henderson: FOODS: *Their Nutritive, Economic and Social Values, Second Edition*

Presents foods as a many-sided subject in an up-to-date, easily understood, and interesting way.

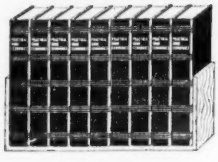
Moore and Leahy: YOU AND YOUR FAMILY

A positive approach to personality development and family relationships written in language which boys and girls understand, with situations drawn from the realm of their daily living.

D. C. Heath and Company

BOSTON NEW YORK CHICAGO ATLANTA
SAN FRANCISCO DALLAS LONDON

START 1951 RIGHT



by Binding your copies of Practical Home Economics

You will then have a treasure house of inspiration and information at your elbow. With an index in December, all of the contents is instantly available.

Price $2.50 each

Practical Home Economics

468 Fourth Ave. New York

4-PIECE TEACHING UNIT ON CANNED FOODS

Home Economics Division
National Canners Association
1133 - 20th Street, N.W.,
Washington 6, D. C.

Please send 4-piece teaching unit for ..... students.

Name .....
School .....Jr. H. S. ..... H. S. ..... College .....
Address .....
City .....Zone .....State .....

10 Jan. 51 PHE

I Want to Bind PRACTICAL!

Practical Home Economics
468 Fourth Avenue, New York 16, N. Y.
Please send me a fabricord Binder for Practical Home Economics for which I inclose $2.50.

Name .....Position .....
School or organization .....
Address .....
City .....Zone .....State .....

36 Jan. 51 PHE

Practical Home Economics—468 Fourth Ave., New York 16, N. Y.

Please send: ☐ a. *History of Home Economics,* $1.00. ☐ b. *Creative Careers in Home Economics,* 40c. ☐ c. *Historic Costume chart,* 50c. ☐ d. *Period Furniture Chart,* 50c ☐ e. *Food Selection Chart for Vegetables and Fruits,* 15c ☐ f. Please send *Practical Home Economics.* ☐ 1 year $2.00. ☐ 2 years $3.00. ☐ 1 Binder, $2.50 each. Cash enclosed $.....

Name .....
Address .....
City ..... State .....

31 Jan. 51 PHE

ROYAL OFFER TO HOME ECONOMISTS

New Tested Technique For Classroom Use— **FREE**

Consumer Service Department, Box P. H., Standard Brands Incorporated, 595 Madison Avenue, N. Y. 22, N. Y.

Please send me the new tested technique "Baking With Baking Powder", complete with student manuals, wall chart, outline for teachers and "Test Yourself" Test.

Name .....
(Please print plainly)
School Affiliation .....
Address .....
City .....State .....
(Offer good only in U. S. A.)

Number of Students In Class

17 Jan. 51 PHE

Westinghouse Electric Corporation, Consumer Service Department
302 East Fourth Street, Mansfield, Ohio

Please send me a free copy of the Westinghouse Teaching Aids Catalog. .....
Also the Film Catalog .....

Name (print) .....
School ..... Street .....
City ..... State .....

22 Jan. 51 PHE

How to Set Up a Nutrition Exhibit is now available as a two-color reprint

Make your next exhibit better
with this short-cut illustrated guide
from Practical's November 1950 issue

Order enough for every member of your class or club group

10 copies	**1.00**
20	**1.75**
50	**2.50**
100	**4.00**

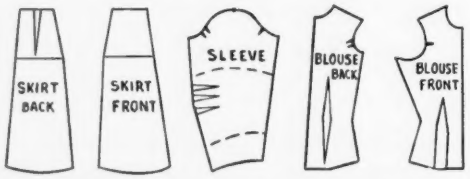
Send post paid to

Practical Home Economics

468 Fourth Avenue, New York 16, N. Y.

Pattern Study Kit—$15.00

Muslin Patterns in Standard & Miniature Sizes



What Is More Fundamental Than Pattern Study?

ONE TEACHER WRITES: "There is a decided lack of material on the most FUNDAMENTAL AND IMPORTANT phase of teaching clothing: PATTERN STUDY! Since this is one of the MOST DIFFICULT units to teach, we would welcome some illustrative material to help."

Four Pattern Helps

I: FOUR BASIC MUSLIN DRESSES:

Made in sizes 12-14-16-18, of 18 sq. muslin, from a basic standard commercial pattern. All main seams are stitched together ready to try on for size and for alterations. A teacher writes: "It is so difficult to 'try on' a paper pattern; it tears easily and is hard for inexperienced fingers to pin and hold."

II: A BASIC MUSLIN PATTERN:

Made of 80 sq. muslin cut from a basic commercial pattern, size 14. All pattern data comes on the basic commercial paper pattern which is included.

III: 18 MINIATURE MUSLIN PATTERNS

Made to fit 18" model. Cut of 80 sq. muslin. Each girl follows teaching instructions on her OWN miniature. All pattern data comes on a paper miniature pattern which is included.

IV: A CHART STUDY OF 4 COMMERCIAL PATTERNS:

Shows how FOUR of the leading commercial patterns vary in measurements, proportion, markings.

FROM THIS KIT YOU CAN TEACH

Identification of pieces	Grain of fabrics
Pattern alterations	Right size selection
Symbols, markings, legends	Laying of pattern
Pattern variations	Figure variations

A Limited Number Available: Order This Kit Today!

GILLUM BOOK COMPANY

400-408 Woodland **Kansas City 6, Missouri**

Shrinkage control treatments

(Continued from page 17)

felting occurs, the woolen cannot be restored to its original dimensions.

Woolen shrinkage treatments

There are now available a number of finishes which when properly applied minimize the felting tendency of wool and control shrinkage in washing. Shrinkage treatments for woolens fall into two main categories—chemical and physical.

Chemical treatments modify the properties of the wool fiber (Harriset, Kelpie, Kray, Protonized, Sanforlan, Schollerized.)

Physical treatments consist of coating or impregnating wool yarns or fabrics with resins (Koloc, Lanaset, Pacifixed, Resloom).

Whether physical or chemical, shrinkage treatments minimize felting shrinkage, but as already explained dimensional stabilization depends also upon the proper construction and finishing of a fabric. If, for example, a woolen fabric is not properly sponged, or if wool socks are knit to a size 9 and boarded to size 11, there will be excessive shrinkage in spite of the non-felting treatment.

It must be kept in mind, therefore, that although these treatments eliminate felting, they do not make wool fabrics shrinkproof. There will be some shrinkage, but it will be controlled. The label will state the maximum shrinkage that can be expected.

How to wash shrinkage treated woolens

Even though the shrinkage is controlled, shrinkage treated woolens cannot be handled like cottons. They should be treated as fine fabrics.

Although these woolens have improved colorfastness, many of the dyes, especially the high style colors, bleed and will discolor other fabrics, even though other woolens may not become stained. It is best to wash these woolens separately. Washing by hand is recommended. They should not be washed in a machine unless the manufacturer recommends it.

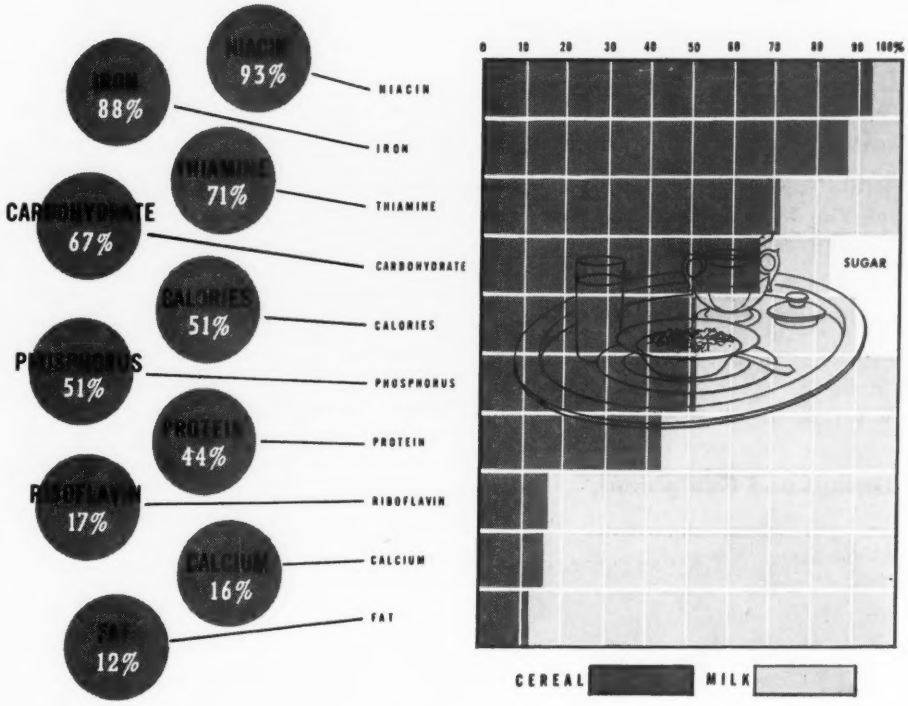
If all trimmings are washable and if the merchandise is properly constructed, shrinkage treated woolens can be washed with confidence. The important thing is to remember in washing woolens to use very little agitation, to keep water temperatures even, washing and rinsing time brief. Recent studies show that a ten-minute soak period in warm water, up to about 110° F, removes most of the soil and reduces the washing period.

How to iron shrinkage treated woolens

Unless the label gives instructions, ironing method must be determined by experiment. Some shrinkage treated woolens can be ironed like any other fine fabric—on the wrong side with a moderately warm iron. Some iron better while damp, others when almost dry. There are some which require pressing with a damp cloth. Pressing with a steam iron on the wrong side of the fabric produces excellent results with almost all shrinkage treated woolens. Woolens require low drying and ironing temperatures. Special care should be taken when using a pressing cloth. Heat which will not damage the pressing cloth may scorch the wool underneath.

WHAT THE BREAKFAST CEREAL CONTRIBUTES

in the Cereal and Milk Serving



That breakfast cereals make a significant contribution to the overall nutrient content of the cereal and milk serving consisting of 1 oz. of breakfast cereal, 4 oz. of milk, and 1 teaspoonful of sugar, is readily apparent from the bar chart. In the case of five of the nine nutrients, as well as in calories, the breakfast cereal alone provides more than 50 per cent of the total amounts contributed by both cereal and milk, and almost 50 per cent of the protein.*

The values shown demonstrate that breakfast cereals are significant sources of many essential nutrients. Their inclusion in the balanced breakfast goes far in satisfying the daily requirements of the nutrients they contribute. For this reason they are widely recommended by nutritionists as an important component of a basic cereal breakfast consisting of fruit, cereal, milk, bread and butter.

As a service to teachers and students of home economics and as a result of seven years of research, Cereal Institute offers authoritative and coordinated Better Breakfast teaching aids, consisting of teacher's manual, classroom charts, and students' work sheets. List of available material will be sent upon request.

Cereal Is an Important "Milk Carrier"

A nation-wide survey made by Elmo Roper revealed that 41% of the adult population seldom or never drink milk. The cereal and milk serving thus becomes an important source of milk for many adults and students. In 1948 breakfast cereals accounted for the consumption of an estimated two billion quarts of milk, equal to 66 quarts of milk per family or 11 percent of our per capita milk consumption.

** These figures are based on composite averages of all breakfast cereals—whole grain, enriched, or restored to whole grain values of thiamine, niacin and iron.*

The presence of this seal indicates that all nutritional statements herein have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

CEREAL INSTITUTE, INC.

A research and educational endeavor devoted to the betterment of national nutrition

135 South La Salle Street, Chicago 3, Illinois